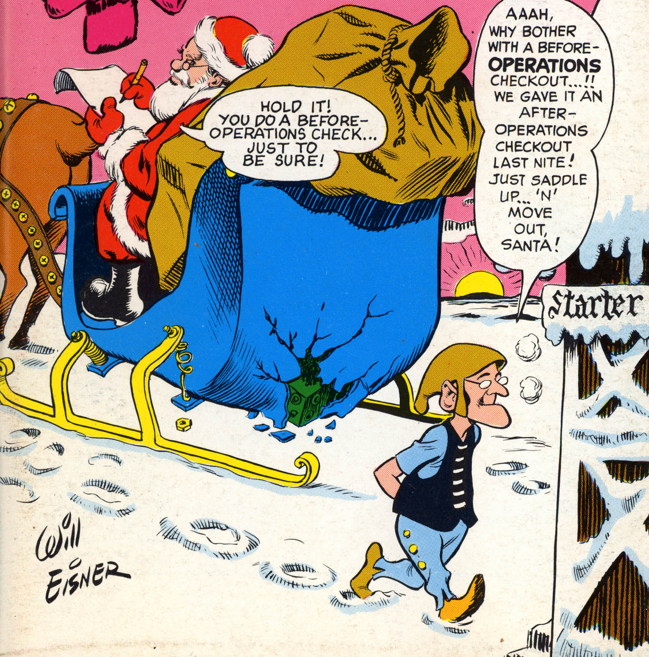
Issue 193

PS

1968 Series

THE PREVENTIVE MAINTENANCE MONTHLY

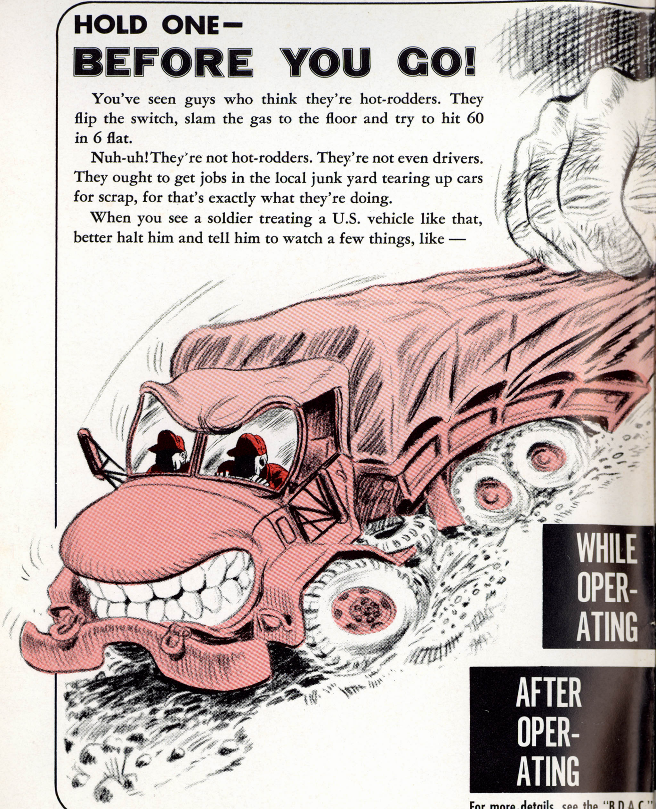

HOLD IT! YOU DO A BEFORE-OPERATIONS CHECK... JUST TO BE SURE!
AAAH, WHY BOTHER WITH A BEFORE-**OPERATIONS** CHECKOUT...!! WE GAVE IT AN AFTER-OPERATIONS CHECKOUT LAST NITE! JUST SADDLE UP... 'N' MOVE OUT, SANTA!
Starter
Will Eisner

HOLD ONE—
BEFORE YOU GO!

You've seen guys who think they're hot-rodders. They flip the switch, slam the gas to the floor and try to hit 60 in 6 flat.

Nuh-uh! They're not hot-rodders. They're not even drivers. They ought to get jobs in the local junk yard tearing up cars for scrap, for that's exactly what they're doing.

When you see a soldier treating a U.S. vehicle like that, better halt him and tell him to watch a few things, like —



WHILE OPERATING

AFTER OPERATING

For more details, see the "B.D.A.C."

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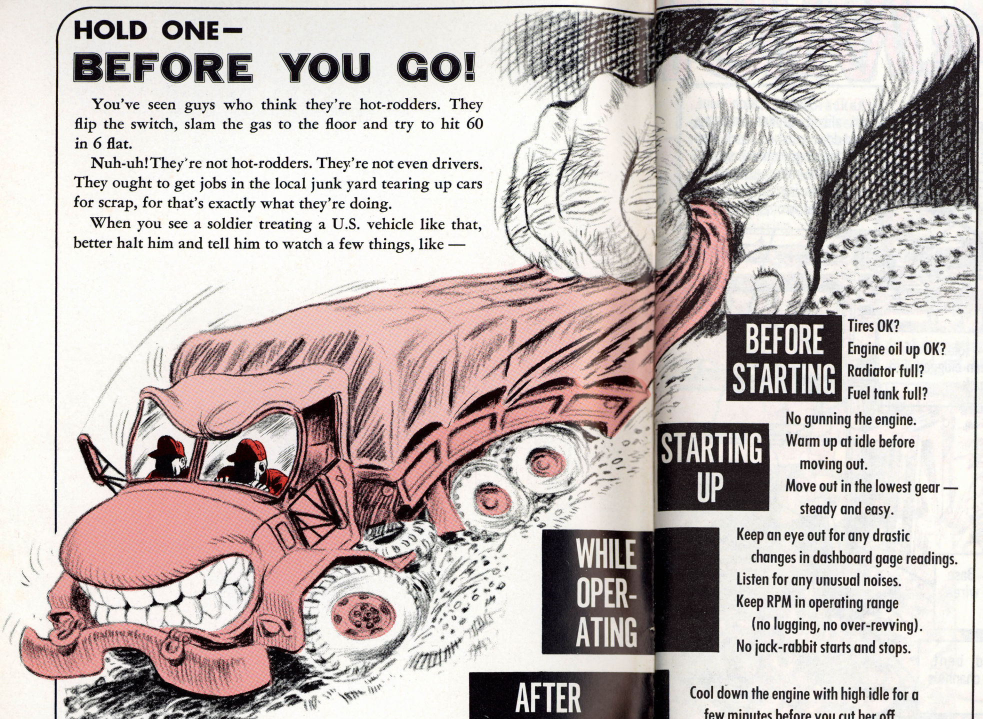

BEFORE STARTING

Tires OK?
Engine oil up OK?
Radiator full?
Fuel tank full?

STARTING UP

No gunning the engine.
Warm up at idle before moving out.
Move out in the lowest gear — steady and easy.

WHILE OPER-ATING

Keep an eye out for any drastic changes in dashboard gage readings.
Listen for any unusual noises.
Keep RPM in operating range (no lugging, no over-revving).
No jack-rabbit starts and stops.

AFTER OPER-ATING

Cool down the engine with high idle for a few minutes before you cut her off.
Fill up lube, fuel, coolant.
Check 'er over for anything loose or damaged.
Clean 'er up, and she's ready for an overnight.

For more details, see the "B.D.A.C." article starting on Page 37.

P★S

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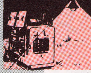

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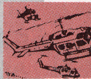

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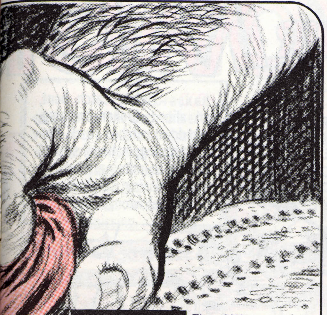
DISTRIBUTION: In accordance with requirements submitted on DA Form 12-4.

PS wants your ideas and contributions, and is glad to answer your questions. Name and address are kept in confidence. Just write to:

Sgt. Half-Mast,
PS Magazine,
Fort Knox, Ky.
40121



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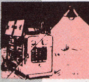

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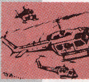

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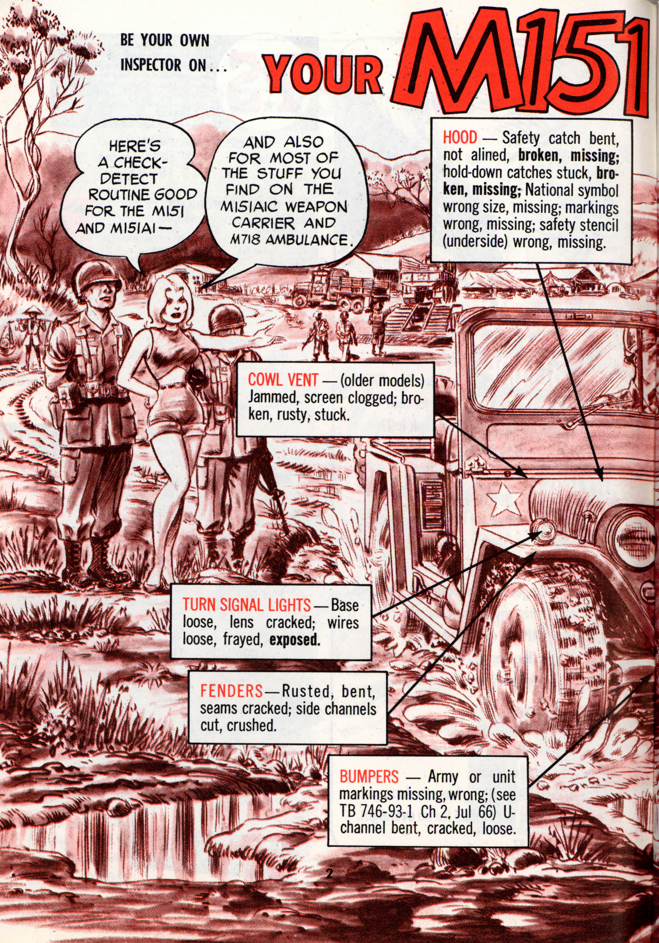
BE YOUR OWN INSPECTOR ON...

YOUR M151


HERE'S A CHECK-DETECT ROUTINE GOOD FOR THE M151 AND M151A1—
AND ALSO FOR MOST OF THE STUFF YOU FIND ON THE M151A1C WEAPON CARRIER AND M718 AMBULANCE.

HOOD — Safety catch bent, not alined, **broken, missing;** hold-down catches stuck, **broken, missing;** National symbol wrong size, missing; markings wrong, missing; safety stencil (underside) wrong, missing.

COWL VENT — (older models) Jammed, screen clogged; broken, rusty, stuck.

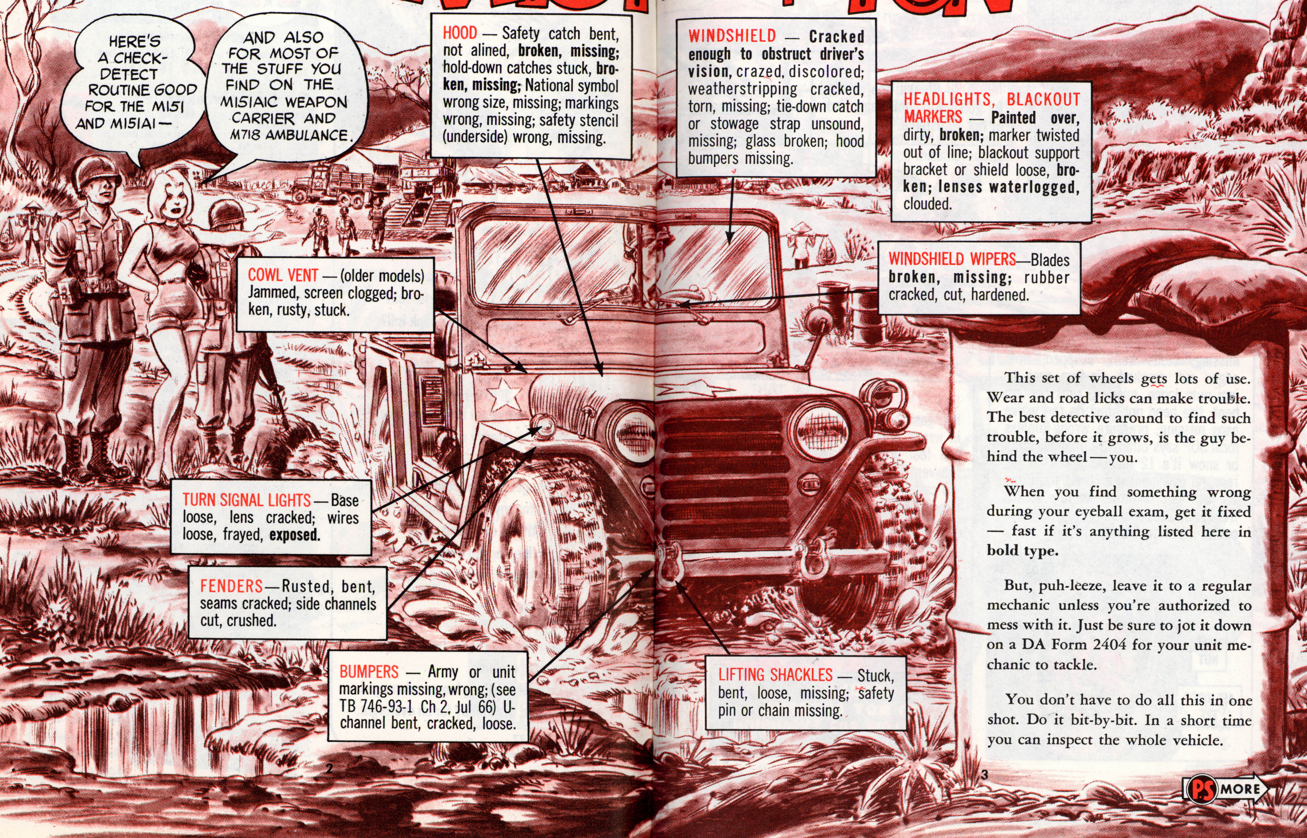
TURN SIGNAL LIGHTS — Base loose, lens cracked; wires loose, frayed, **exposed.**

FENDERS — Rusted, bent, seams cracked; side channels cut, crushed.

BUMPERS — Army or unit markings missing, wrong; (see TB 746-93-1 Ch 2, Jul 66) U-channel bent, cracked, loose.

BE YOUR OWN INSPECTOR ON...

YOUR M151 A1 ¼-TON TRUCK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WINDSHIELD — **Cracked enough to obstruct driver's vision,** crazed, discolored; weatherstripping cracked, torn, missing; tie-down catch or stowage strap unsound, missing; glass broken; hood bumpers missing.

HEADLIGHTS, BLACKOUT MARKERS — **Painted over,** dirty, **broken;** marker twisted out of line; blackout support bracket or shield loose, **broken; lenses waterlogged,** clouded.

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LIFTING SHACKLES — Stuck, bent, loose, missing; safety pin or chain missing.

This set of wheels gets lots of use. Wear and road licks can make trouble. The best detective around to find such trouble, before it grows, is the guy behind the wheel—you.

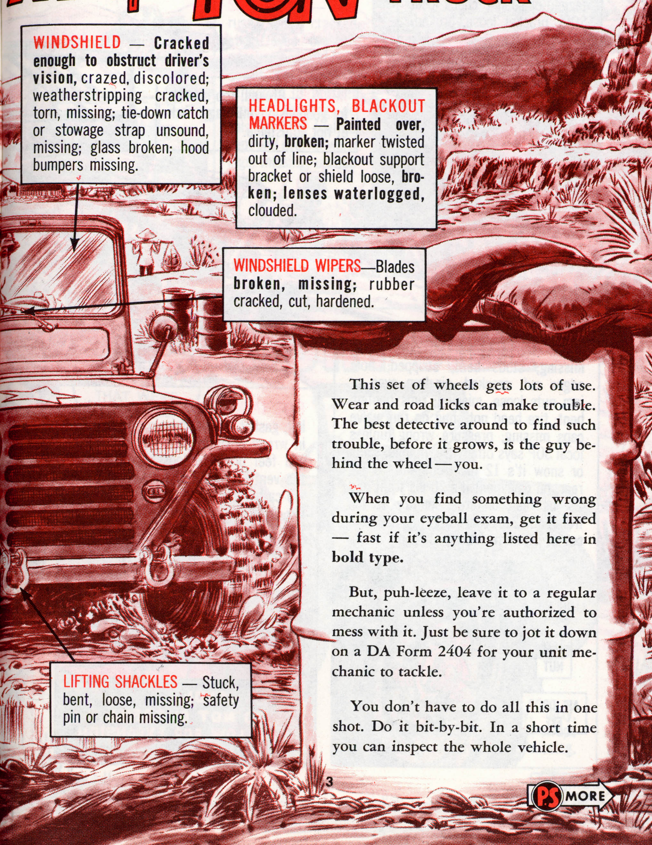
When you find something wrong during your eyeball exam, get it fixed — fast if it's anything listed here in **bold type.**

But, puh-leeze, leave it to a regular mechanic unless you're authorized to mess with it. Just be sure to jot it down on a DA Form 2404 for your unit mechanic to tackle.

You don't have to do all this in one shot. Do it bit-by-bit. In a short time you can inspect the whole vehicle.

PS MORE

A1 ¼-TON TRUCK



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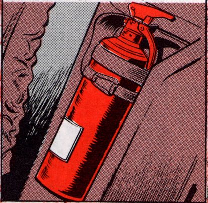
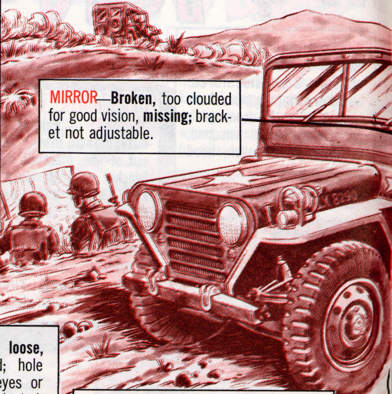
PS MORE

LEFT

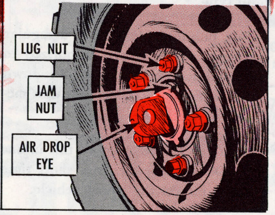
FIRE EXTINGUISHER— (if behind seat) **Discharged,** not tagged or sealed (check local SOP), bracket loose, broken.



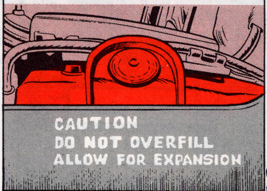


MIRROR—**Broken,** too clouded for good vision, **missing;** bracket not adjustable.

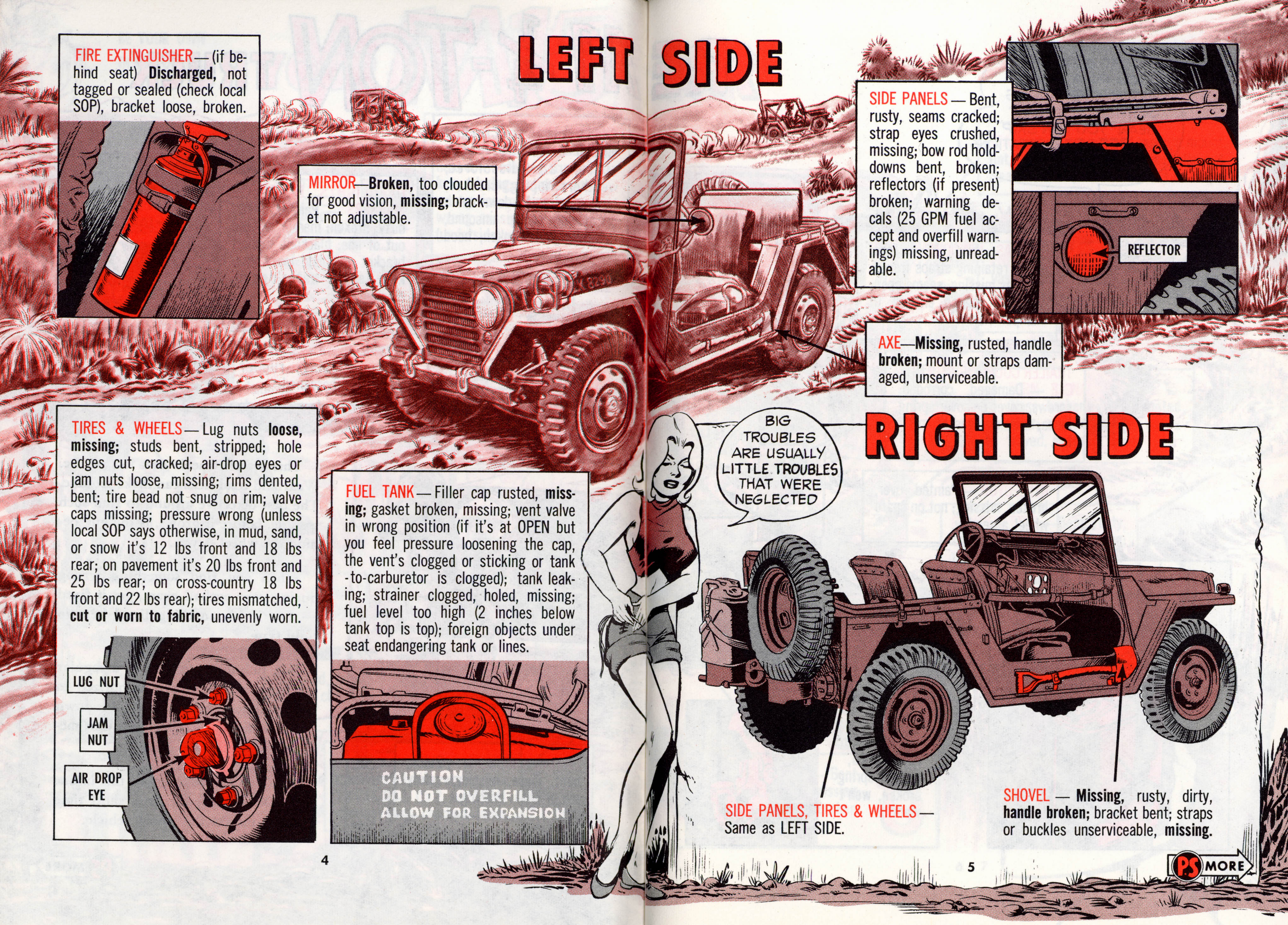
TIRES & WHEELS— Lug nuts **loose, missing;** studs bent, stripped; hole edges cut, cracked; air-drop eyes or jam nuts loose, missing; rims dented, bent; tire bead not snug on rim; valve caps missing; pressure wrong (unless local SOP says otherwise, in mud, sand, or snow it's 12 lbs front and 18 lbs rear; on pavement it's 20 lbs front and 25 lbs rear; on cross-country 18 lbs front and 22 lbs rear); tires mismatched, **cut or worn to fabric,** unevenly worn.



FUEL TANK— Filler cap rusted, **missing;** gasket broken, missing; vent valve in wrong position (if it's at OPEN but you feel pressure loosening the cap, the vent's clogged or sticking or tank-to-carburetor is clogged); tank leaking; strainer clogged, holed, missing; fuel level too high (2 inches below tank top is top); foreign objects under seat endangering tank or lines.



LEFT SIDE



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SIDE PANELS— Bent, rusty, seams cracked; strap eyes crushed, missing; bow rod holddowns bent, broken; reflectors (if present) broken; warning decals (25 GPM fuel accept and overfill warnings) missing, unreadable.

AXE—**Missing,** rusted, handle **broken;** mount or straps damaged, unserviceable.

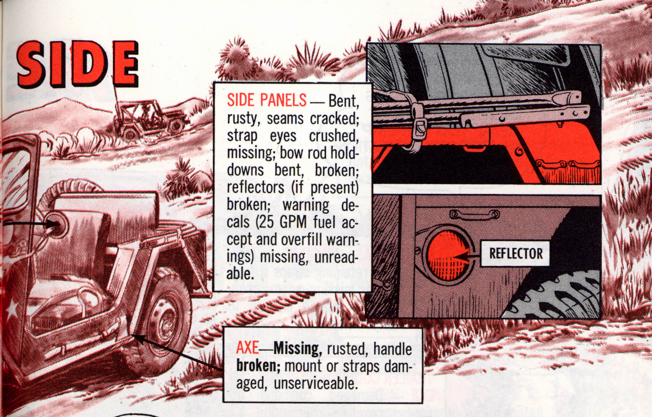
RIGHT SIDE

SIDE PANELS, TIRES & WHEELS— Same as LEFT SIDE.

SHOVEL — **Missing,** rusty, dirty, **handle broken;** bracket bent; straps or buckles unserviceable, **missing.**

PS MORE

SIDE



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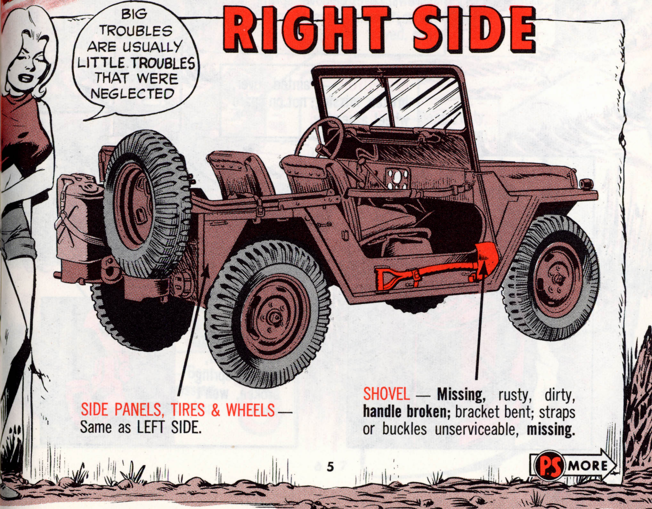
BIG TROUBLES ARE USUALLY LITTLE TROUBLES THAT WERE NEGLECTED

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PS MORE

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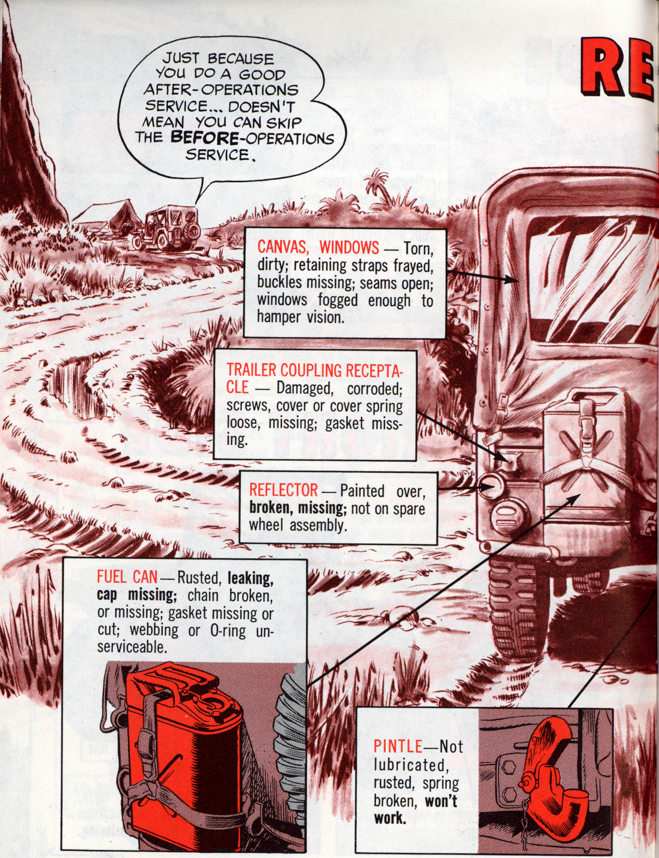

JUST BECAUSE YOU DO A GOOD AFTER-OPERATIONS SERVICE... DOESN'T MEAN YOU CAN SKIP THE **BEFORE**-OPERATIONS SERVICE.

CANVAS, WINDOWS — Torn, dirty; retaining straps frayed, buckles missing; seams open; windows fogged enough to hamper vision.

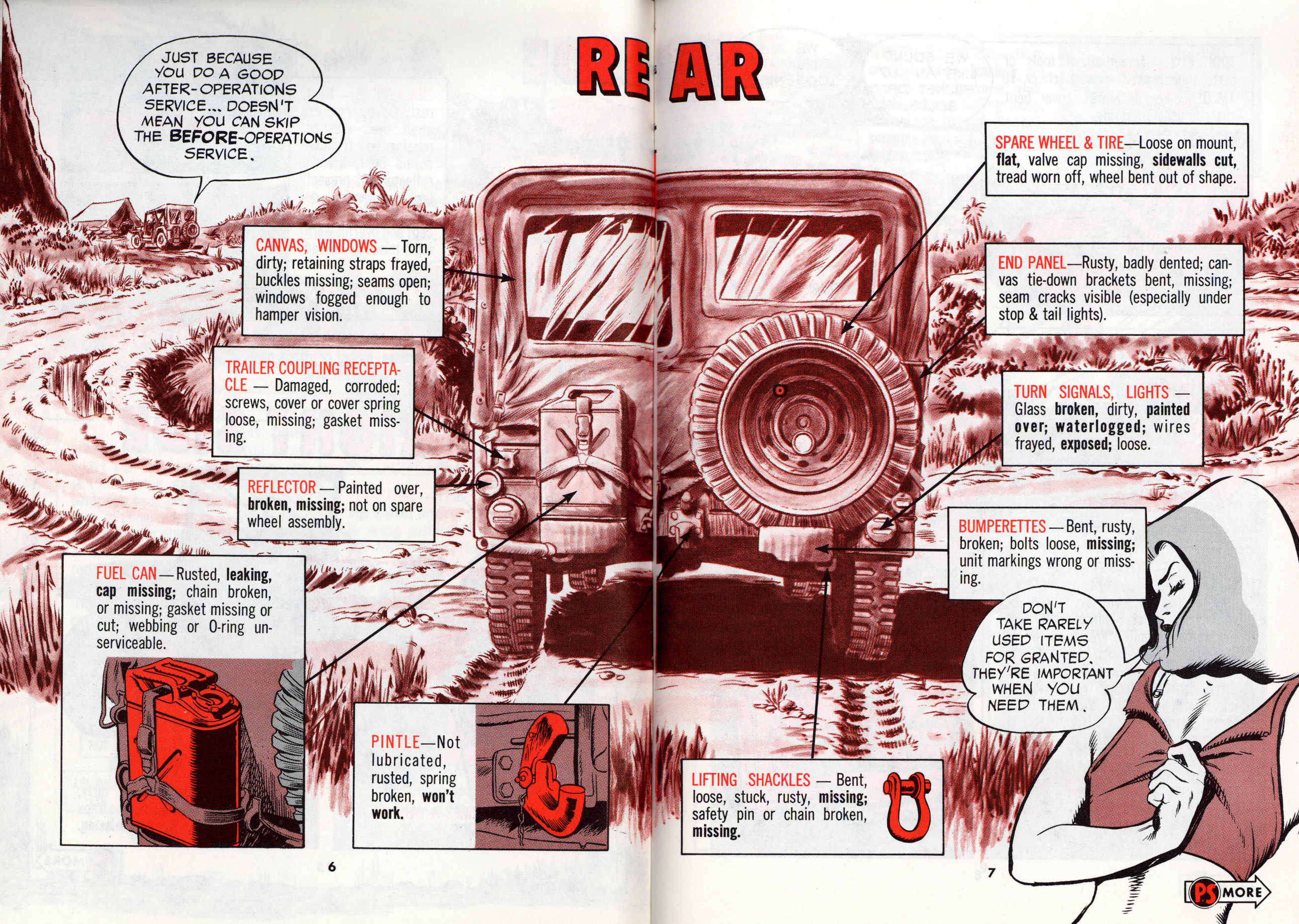
TRAILER COUPLING RECEPTACLE — Damaged, corroded; screws, cover or cover spring loose, missing; gasket missing.

REFLECTOR — Painted over, **broken, missing;** not on spare wheel assembly.

FUEL CAN — Rusted, **leaking, cap missing;** chain broken, or missing; gasket missing or cut; webbing or O-ring unserviceable.

PINTLE — Not lubricated, rusted, spring broken, **won't work.**

REAR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LIFTING SHACKLES — Bent, loose, stuck, rusty, **missing;** safety pin or chain broken, **missing.**

SPARE WHEEL & TIRE — Loose on mount, **flat,** valve cap missing, **sidewalls cut,** tread worn off, wheel bent out of shape.

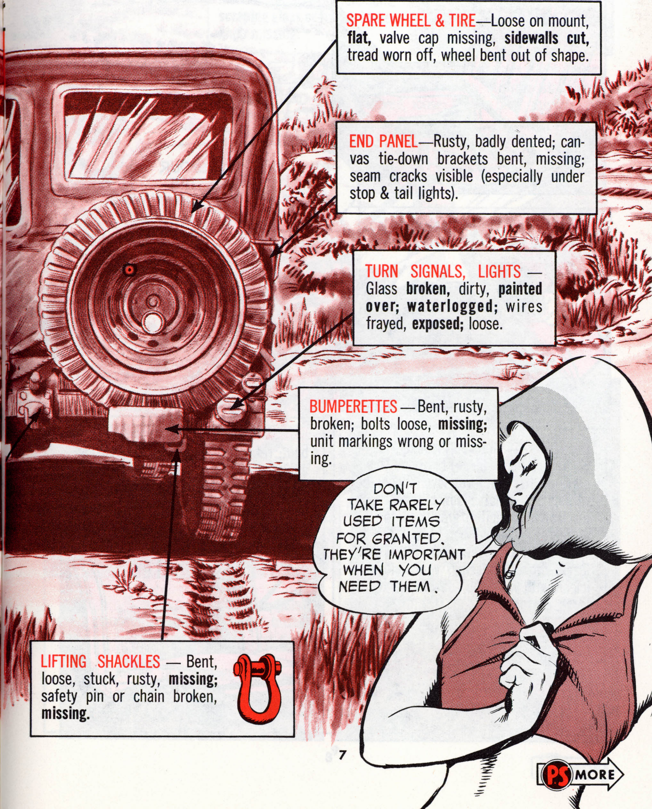
END PANEL — Rusty, badly dented; canvas tie-down brackets bent, missing; seam cracks visible (especially under stop & tail lights).

TURN SIGNALS, LIGHTS — Glass **broken,** dirty, **painted over; waterlogged;** wires frayed, **exposed;** loose.

BUMPERETTES — Bent, rusty, broken; bolts loose, **missing;** unit markings wrong or missing.

PS MORE

AR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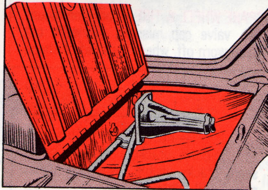
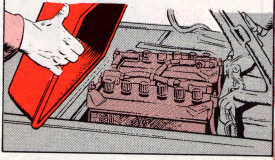
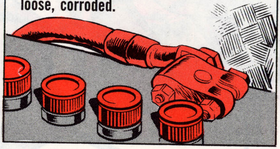
TOOL BOX — Unauthorized tools or parts; tools **broken, missing;** (check -10 TM OEM); box dirty, wet; cover bent, rusty, crushed, **missing.**



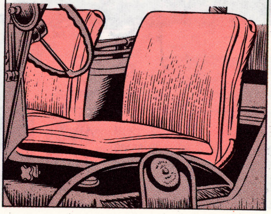
BATTERY BOX—Cover bent, clips loose or broken; box dirty, **corroded.**

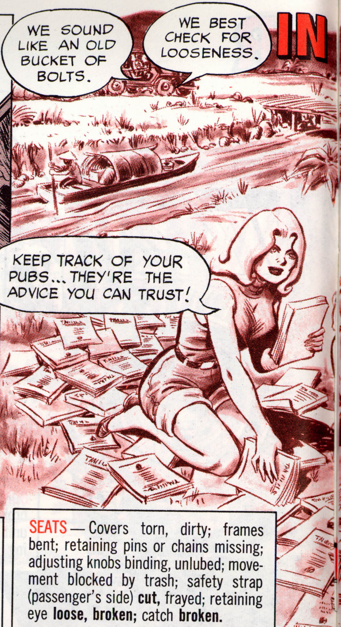


BATTERIES — **Cracked, leaking,** dirty; **clamps or posts loose, corroded, mangled; electrolyte level low** (should be ⅜ inch above plates); **low charge** (check electrolyte specific gravity with hydrometer — should be 1.200-1.225 in tropics, 1.285 elsewhere); filler caps **loose, broken, missing,** vents **clogged** (clean with wire); holddowns too tight, **loose, corroded.**



SEATS — Covers torn, dirty; frames bent; retaining pins or chains missing; adjusting knobs binding, unlubed; movement blocked by trash; safety strap (passenger's side) **cut,** frayed; retaining eye **loose, broken;** catch **broken.**




WE SOUND LIKE AN OLD BUCKET OF BOLTS.
WE BEST CHECK FOR LOOSENESS.
IN
KEEP TRACK OF YOUR PUBS... THEY'RE THE ADVICE YOU CAN TRUST!

IN SIDE

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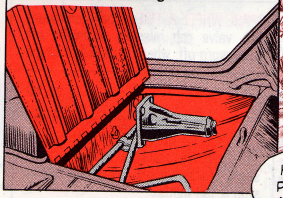
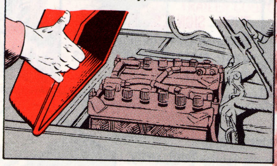
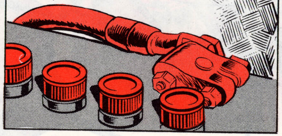


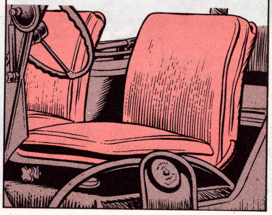
BATTERY BOX—Cover bent, clips loose or broken; box dirty, **corroded.**

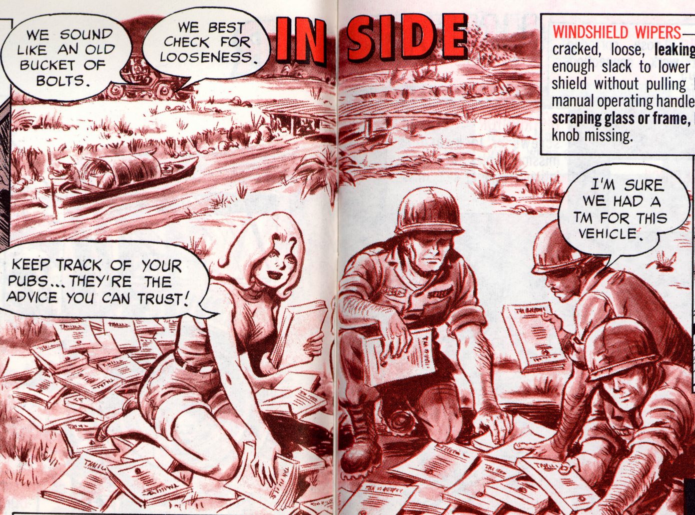


BATTERIES — **Cracked, leaking,** dirty; **clamps or posts loose, corroded, mangled; electrolyte level low** (should be ⅜ inch above plates); **low charge** (check electrolyte specific gravity with hydrometer — should be 1.200-1.225 in tropics, 1.285 elsewhere); filler caps **loose, broken, missing,** vents **clogged** (clean with wire); holddowns too tight, **loose, corroded.**

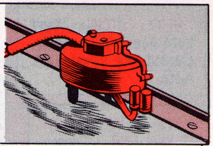


SEATS — Covers torn, dirty; frames bent; retaining pins or chains missing; adjusting knobs binding, unlubed; movement blocked by trash; safety strap (passenger's side) **cut,** frayed; retaining eye **loose, broken;** catch **broken.**

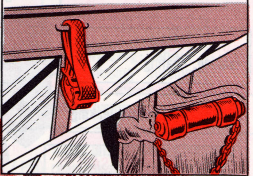


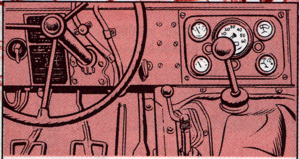

WE SOUND LIKE AN OLD BUCKET OF BOLTS.
WE BEST CHECK FOR LOOSENESS.
KEEP TRACK OF YOUR PUBS... THEY'RE THE ADVICE YOU CAN TRUST!
I'M SURE WE HAD A TM FOR THIS VEHICLE.

WINDSHIELD WIPERS—Hose cracked, loose, **leaking;** not enough slack to lower windshield without pulling loose; manual operating handle bent, **scraping glass or frame,** loose, knob missing.



WINDSHIELD — Lock pins stuck, **missing;** chain broken; stowing strap cut, frayed, loose; buckle bent, missing.





GAGES, INDICATORS—Glass broken, **painted over,** clouded; **unreadable**; pointer **missing.**

DATA PLATES—**Painted over,** loose, missing.

FLOOR—Rusted, drains clogged.

(More on INSIDE items coming up in WORKING CHECK)

PUBLICATIONS (in map pocket, back of driver's seat) —
- TM 9-2320-218-10 (Mar 68)
- LO 9-2320-218-12 (Nov 66)
- SF 91
- DD Form 518
- DA Form 2404 (for day's operation)

LOG BOOK (may also be in map pocket)
- ESC TM:
  - M151 or M151A1 — TM 9-2320-218-ESC w/Ch 1 (Mar 68)
  - M151A1C — TM 9-2320-218-ESC/1 w/Ch 1 (Mar 68)
  - M718 — TM 9-2320-218-ESC/2 w/Ch 1 (Mar 68)

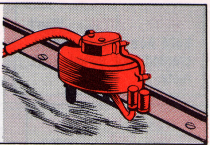
DA Form 2404 (Latest ESC rating in log pocket)

For unit mechanics: Your -20 TM is dated Apr 63.

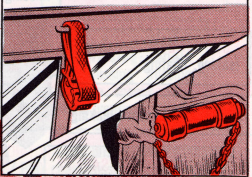
PS MORE

SIDE

WINDSHIELD WIPERS—Hose cracked, loose, **leaking;** not enough slack to lower windshield without pulling loose; manual operating handle bent, **scraping glass or frame,** loose, knob missing.



WINDSHIELD—Lock pins stuck, **missing;** chain broken; stowing strap cut, frayed, loose; buckle bent, missing.



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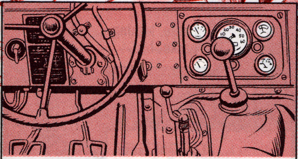

GAGES, INDICATORS—Glass broken, **painted over,** clouded; **unreadable;** pointer **missing.**

DATA PLATES—**Painted over,** loose, missing.

FLOOR—Rusted, drains clogged.

(More on INSIDE items coming up in WORKING CHECK)

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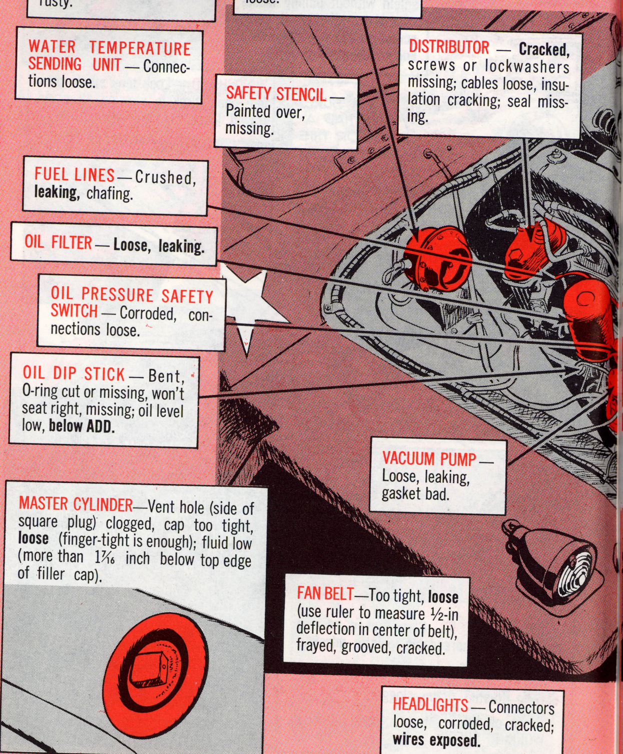
For unit mechanics: Your -20 TM is dated Apr 63.

PS MORE

UNDER



SAFETY CATCH — **Won't hold hood up securely,** cracked, not alined right, rusty.

HORN — Loose, corroded, **won't work,** connections loose.

WATER TEMPERATURE SENDING UNIT — Connections loose.

SAFETY STENCIL — Painted over, missing.

DISTRIBUTOR — **Cracked,** screws or lockwashers missing; cables loose, insulation cracking; seal missing.

FUEL LINES — Crushed, **leaking,** chafing.

OIL FILTER — **Loose, leaking.**

OIL PRESSURE SAFETY SWITCH — Corroded, connections loose.

OIL DIP STICK — Bent, O-ring cut or missing, won't seat right, missing; oil level low, **below ADD.**

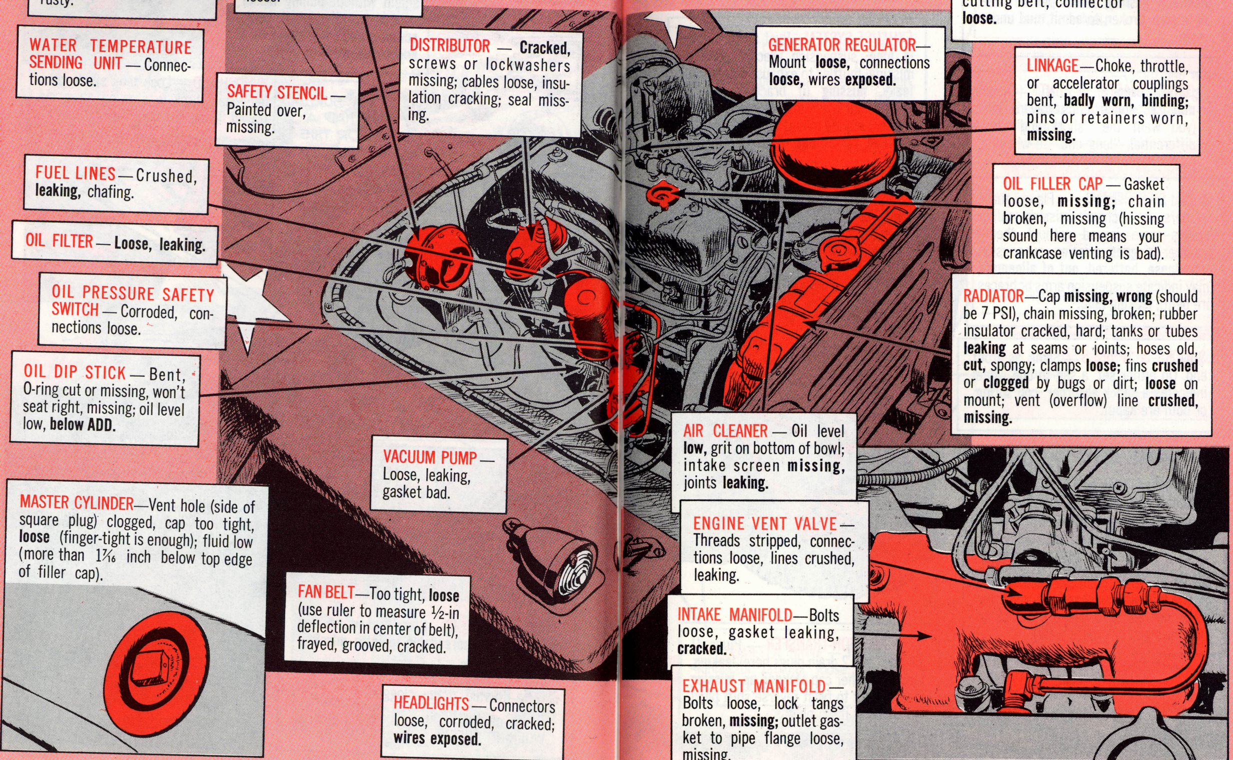
VACUUM PUMP — Loose, leaking, gasket bad.

MASTER CYLINDER—Vent hole (side of square plug) clogged, cap too tight, **loose** (finger-tight is enough); fluid low (more than 1$\frac{7}{16}$ inch below top edge of filler cap).

FAN BELT—Too tight, **loose** (use ruler to measure $\frac{1}{2}$-in deflection in center of belt), frayed, grooved, cracked.

HEADLIGHTS — Connectors loose, corroded, cracked; **wires exposed.**

UNDER THE HOOD



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GENERATOR — Out of line, **loose,** pulley **cracked** or cutting belt, connector **loose.**

GENERATOR REGULATOR—Mount **loose,** connections **loose,** wires **exposed.**

LINKAGE—Choke, throttle, or accelerator couplings bent, **badly worn, binding;** pins or retainers worn, **missing.**

OIL FILLER CAP — Gasket loose, **missing;** chain broken, missing (hissing sound here means your crankcase venting is bad).

RADIATOR—Cap **missing, wrong** (should be 7 PSI), chain missing, broken; rubber insulator cracked, hard; tanks or tubes **leaking** at seams or joints; hoses old, **cut,** spongy; clamps **loose;** fins **crushed** or **clogged** by bugs or dirt; **loose** on mount; vent (overflow) line **crushed, missing.**

AIR CLEANER — Oil level **low,** grit on bottom of bowl; intake screen **missing,** joints **leaking.**

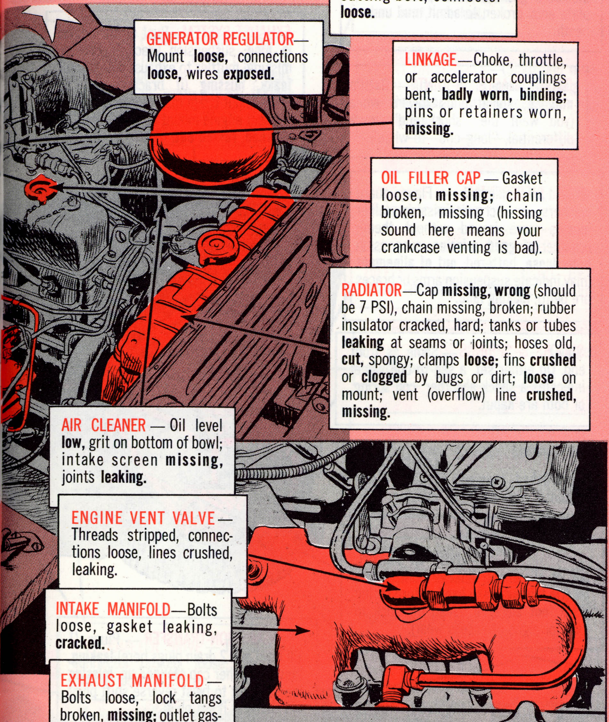
ENGINE VENT VALVE — Threads stripped, connections loose, lines crushed, leaking.

INTAKE MANIFOLD—Bolts loose, gasket leaking, **cracked.**

EXHAUST MANIFOLD — Bolts loose, lock tangs broken, **missing;** outlet gasket to pipe flange loose, missing.

PS MORE

THE HOOD



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PS MORE

UNDER

UNDERFRAME—Bottom plates or cross-members gashed, welds pulled loose; plate ends broken to admit mud underneath.

DRIVE SHAFTS, U-JOINTS— **Rattling, unlubed;** spline ends toward wheels (you want the "short end" toward differential, "long end" to wheel).

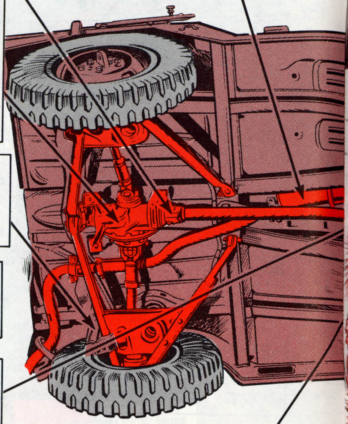
REAR DIFFERENTIAL — Flange-guard washers or screws missing (older models were issued without them); breather **plugged, missing;** suspension bolts **loose,** battered; **out of alinement** (may indicate suspension arms or braces are bent); **leaking lube.**

SHOCKS & SPRINGS— Same as front end. On either set, a sag to one wheel indicates a shock absorber, coil spring, or both are kaput.

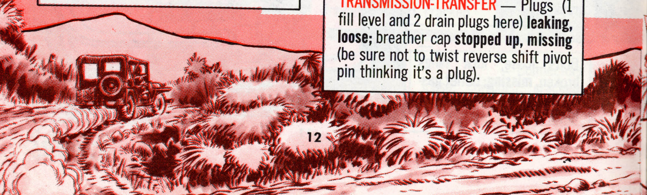
SERVICE BRAKE LINES—**Leaking,** chafing, **crushed;** tees and connectors wet at joints; clips dangling, missing.

PARKING BRAKE— Loose on support, out of alinement; linkage bent, loose; **oil drip fouling brake band;** return spring slack, **not engaged** (clean off guck to look for signs of excess wear).

EXHAUST SYSTEM—Rust or burn **holes in pipe;** suspension brackets broken, missing; muffler to exhaust pipe gasket **leaky, missing** (if brackets are all present but chafe marks or holes show, suspect engine mount damage); muffler **crushed, rusted out.**



TRANSMISSION-TRANSFER — Plugs (1 fill level and 2 drain plugs here) **leaking, loose;** breather cap **stopped up, missing** (be sure not to twist reverse shift pivot pin thinking it's a plug).



UNDERNEATH

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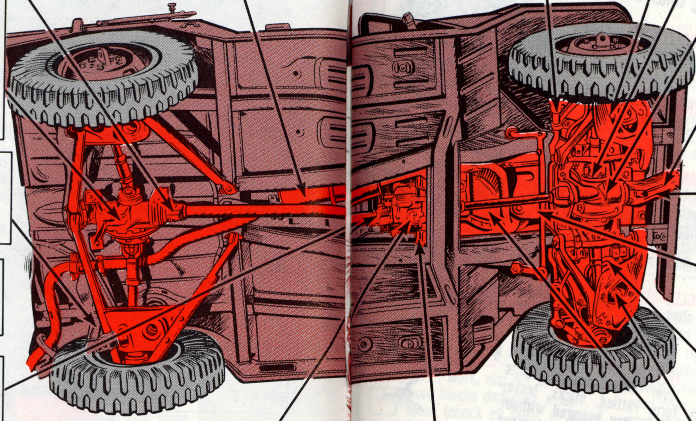

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STEERING — Pitman or idler arms or shafts **loose;** nuts or cotter pins **missing;** tie-rod spindle-arm assembly **bent, loose;** bushings **worn;** grease fittings **broken, missing;** clamps or sleeves **bent, loose, missing.**

SPEEDOMETER DRIVE — Transfer case connector broken, loose; housing or fittings crushed.

FRONT SUSPENSION — Bolts **loose** on lower arm assembly; shims **missing;** shaft bolts **loose;** arms or crossmembers **bent, cracked.**

FRONT UNIVERSALS—(Shaft and wheel drive) Nuts or bolts **loose, missing; excessive wear** (a rattling sound tells you), **poorly lubed.**

DIFFERENTIAL—**Dripping lube,** breather plugged or **missing.**

DIFFERENTIAL FLANGE GUARD—Bent; bolts, washers, screws loose, missing.

RADIATOR DRAIN COCK — Clogged, stuck, broken.

ENGINE OIL PAN — Drain plug **loose, leaking;** pan gaskets **leaking;** bolts **loose, missing.**

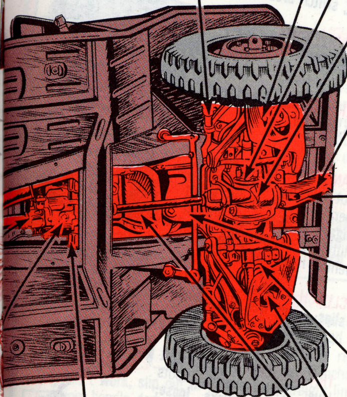
COIL SPRINGS—**Broken,** lopsided, tips broken, insulator missing.

SHOCK ABSORBERS — Bent, crushed, loose, dented, **broken.**

FLYWHEEL-CLUTCH HOUSING — Drain plug not in blind boss (on early models it's kept in the tool box); transmission seals **leaking.**

PS MORE

NEATH



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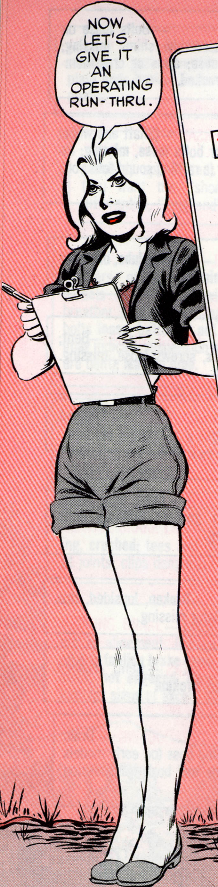
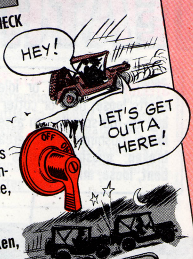
PS MORE


NOW LET'S GIVE IT AN OPERATING RUN-THRU.

A WORKING CHECK


HEY!
LET'S GET OUTTA HERE!
OFF
ON

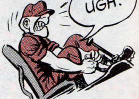
☑ **PARKING BRAKE**—Boot torn, missing; **won't hold on slope;** won't engage and release smoothly.

☑ **IGNITION SWITCH**—Lock nuts to panel loose, **missing;** handle retaining screw loose, missing, switch **broken.**

☑ **WARNING LIGHTS** — **Broken, painted over.**

CAN'T SEE OUT

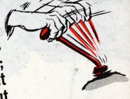
☑ **WIPER MOTORS**—**Won't work,** weak, chatter.



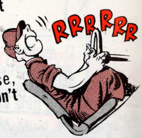
☑ **TRANSFER** — Knob missing; boot missing, torn; hard to operate at standstill, **won't engage or disengage** without clutching or stopping when vehicle is moving forward.

CLANK CLANK

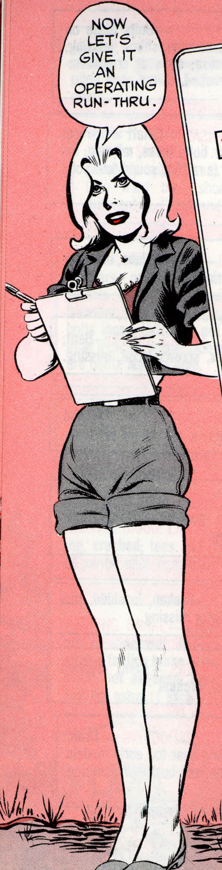
☑ **CLUTCH** — **Grabs, chatters, slips; wrong free play** (should be 1⅛ to 1¼ inch).



☑ **TRANSMISSION** — Gearshift lever knob missing, boots torn; rattles, **sticks, loose; won't stay engaged without excess noise or jumping out of gear.**



☑ **STARTER PEDAL**—Loose, works hard; **broken, won't work.**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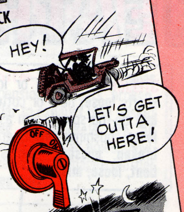
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OFF
ON

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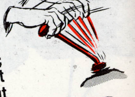

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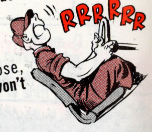


☑ **STARTER PEDAL**—Loose, works hard; **broken, won't work.**

☑ **CHOKE CONTROL & THROTTLE CONTROL**—Sticking, handles loose, missing; won't stay set.

☑ **BATTERY-GENERATOR INDICATOR—Needle fails to swing** from far left to Yellow or low Green as switch is turned on and in idle; while running usual speeds, needle **doesn't stay in Green.**

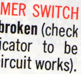
☑ **OIL PRESSURE GAGE—Fails to read between 15 and 30 PSI when idling in ordinary weather and close to 40 PSI at normal speeds.**

☑ **ACCELERATOR PEDAL—Binds, sticks in any position, loose, broken.**

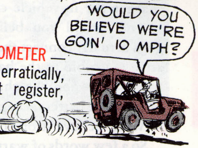
☑ **STEERING**—Wheel gouged or cracked so it **hurts hands to drive; core rusted through;** steering column **loose,** dash bracket **loose,** tube cut; front end **shimmies or bounces; steers hard or loose.** Horn stuck, **won't work.**

☑ **TURN SIGNALS**—(If present) **Won't work,** slip out of position, handle damaged, mount loose (check all bulbs in all lights at standstill with engine running).

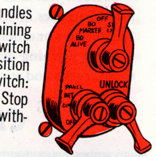
☑ **HEADLIGHTS, BLACKOUT LIGHTS**—Mounts, brackets **loose, broken; won't light,** flicker when jolted.



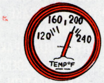
☑ **HEADLIGHT DIMMER SWITCH**—Loose, stuck, **broken** (check dash panel indicator to be sure high beam circuit works).


WOULD YOU BELIEVE WE'RE GOIN' 10 MPH?

☑ **SPEEDOMETER-ODOMETER** Sticking, works erratically, mileage does not register, jumps, **broken.**

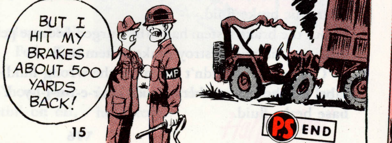


☑ **LIGHT SWITCHES** — Handles **broken,** sticking; retaining screws missing; main switch movable from lock position (there're 2 kinds of switch: yours might give you Stop Light and Service Drive without using UNLOCK).



☑ **ENGINE TEMPERATURE GAGE—Fails to read 160° to 180° warmed up, around 200° in usual operating conditions.**

SERVICE BRAKES—Spongy, wrong adjustment (check free travel by hand at standstill: ¼ inch, plus or minus ⅟₁₆ inch, is right, and should clear floor by 2 inches). Vehicle should stop in straight line in 100 feet or less on dry road (use steady pressure, not panic stop) at highest permissible road speed. If vehicle swerves, brakes may need adjustment.


BUT I HIT MY BRAKES ABOUT 500 YARDS BACK!
MP

PS END

☑ **CHOKE CONTROL & THROTTLE CONTROL**—Sticking, handles loose, missing; won't stay set.

☑ **BATTERY-GENERATOR INDICATOR**—**Needle fails to swing** from far left to Yellow or low Green as switch is turned on and in idle; while running usual speeds, needle **doesn't stay in Green.**

☑ **OIL PRESSURE GAGE** — **Fails to read between 15 and 30 PSI when idling in ordinary weather and close to 40 PSI at normal speeds.**

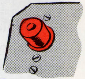
☑ **ACCELERATOR PEDAL** — **Binds, sticks in any position, loose, broken.**

☑ **STEERING**—Wheel gouged or cracked so it **hurts hands to drive; core rusted through;** steering column **loose,** dash bracket **loose,** tube cut; front end **shimmies or bounces; steers hard or loose.** Horn stuck, **won't work.**

☑ **TURN SIGNALS** —(If present) **Won't work,** slip out of position, handle damaged, mount loose (check all bulbs in all lights at standstill with engine running).

☑ **HEADLIGHTS, BLACKOUT LIGHTS** — Mounts, brackets **loose, broken; won't light,** flicker when jolted.

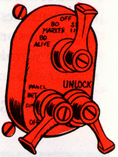
☑ **HEADLIGHT DIMMER SWITCH** —Loose, stuck, **broken** (check dash panel indicator to be sure high beam circuit works).



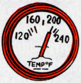
WOULD YOU BELIEVE WE'RE GOIN' 10 MPH?

☑ **SPEEDOMETER-ODOMETER** — Sticking, works erratically, mileage does not register, jumps, **broken.**

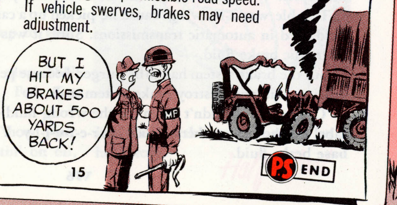
☑ **LIGHT SWITCHES** — Handles **broken,** sticking; retaining screws missing; main switch movable from lock position (there're 2 kinds of switch: yours might give you Stop Light and Service Drive without using UNLOCK).



☑ **ENGINE TEMPERATURE GAGE** —**Fails to read 160° to 180° warmed up, around 200° in usual operating conditions.**



SERVICE BRAKES—**Spongy, wrong adjustment** (check free travel by hand at standstill: $\frac{1}{4}$ inch, plus or minus $\frac{1}{16}$ inch, is right, and should clear floor by 2 inches). Vehicle should stop in straight line in 100 feet or less on dry road (use steady pressure, not panic stop) at highest permissible road speed. If vehicle swerves, brakes may need adjustment.


BUT I HIT MY BRAKES ABOUT 500 YARDS BACK!
MP

G838-SERIES 1/4-TON TRUCK . . .

WARNING DECAL

Would you believe some guys forget to disconnect their vehicle's battery cables when they hook up a battery charger for in-vehicle charging?

And would you believe that some guys actually connect the charger's negative (–) cable to the battery's positive (+) post—and the charger's positive cable to the battery's negative post?

Well, believe it or not, they do.

So a few words of warning may save a lot of batteries in your outfit's M151A1 1/4-tonners or other G838-series trucks.

Get a warning decal for every one of those trucks and stick it on the inside of the battery box cover. Ask for Decal, FSN 7690-912-3504, listed in SC 7660/90-IL (Jun 67). After installing, give it a coat of clear varnish so it won't go to pot.

— CAUTION —

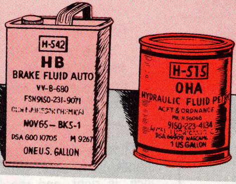
BOOSTER OR BATTERY NEG(-) CABLE
MUST GO TO NEG(-) POS(+) TO
POS(+) DISCONNECT BATTERY
CABLES BEFORE USING CHARGER

And then remember—always, negative-to-negative and positive-to-positive.

OH MY ACHING SEALS . . .

CHERRY JUICE MIXUP

NON-PETROLEUM BASE HYDRAULIC BRAKE FLUID FOR USE IN HYDRAULIC BRAKE SYSTEMS. FEDERAL SPECIFICATION VV-F-451A, VV-H-910, OR VV-B-680.



PETROLEUM BASE HYDRAULIC FLUID FOR USE IN AUTOMATIC TRANSMISSIONS. DO NOT SUBSTITUTE FOR BRAKE FLUID . . . EVER ! !

Cherry juice razzle-dazzle is fine at the gedunk stand, but it can be downright dangerous if it's practiced in the maintenance shop.

Take the recent case of an M151 in a shop for a brake job. The mechanic filled the master cylinder from the first can of cherry juice he came across.

Trouble was a-brewing 'cause he picked up a can of petroleum base hydraulic fluid used in automatic transmissions. Sure, it was cherry color and flowed like hydraulic brake fluid.

But the brake system had to be purged because petroleum base hydraulic transmission fluid will destroy brake system seals.

'Course you wouldn't reach for the wrong fluid—not as long as you eye the label on the can of cherry juice c-a-r-e-f-u-l-l-y. You want the **non-petroleum** base brake fluid.

2-1/2-TON TRUCK . . .

HERE'S THE HOLE STORY

Dear Half-Mast,

Two-and-a-half pints is the capacity of the steering gear housing on a G742-series 2-1/2-ton truck. That's what it says in LO 9-2320-209-12 (Jan 68). This much GO doesn't fill the housing to the fill hole. In fact, you can't even see the oil through the fill hole.

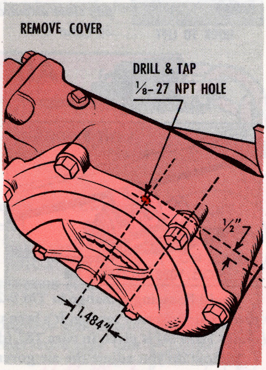
The LO says to "check level," but how're you going to tell where the oil level is when you can't see it?

SGT J. H. N.

Dear Sergeant J. H. N.,

You need an oil level check hole—like's on the new production vehicles, So . . .

Take off the side cover. On top of the cover, measure back 1.484 inches from the center of the forward upper bolt and 1/2 inch in from the mounting edge. Drill and tap a 1/8-27 NPT hole. Clean off any metal particles left on the cover.



Put the cover back on your gear housing, using a new gasket, FSN 2530-752-1485.

Refill the gear housing up to your new check hole.

Install a check hole pipe plug, FSN 4730-350-3401, listed in Fed Cat C4730-IL-A.

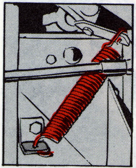
When you want to see how your steering gear housing's settin' on oil, just take out that new plug and get the hole story.

Half-Mast

G744-SERIES 5-TON TRUCK . . .

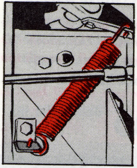
CLUTCH SPRING SAVER

RIGHT

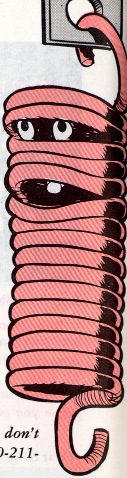


HOOK TO RIGHT

WRONG



HOOK TO LEFT



Dear Editor,

There's no need for losing the clutch pedal retracting spring on a 5-ton truck — even when rough terrain operation does its darnedest to shake the spring off.

Usually you see that spring installed the easy way, and it comes off almost as easy as it went on.

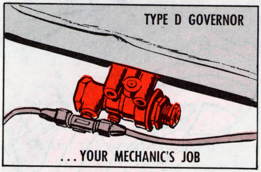
Installed the hard way (you use a little more muscle), that spring will stay put until you want it off.

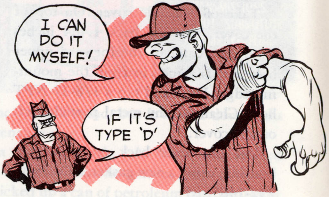
Instead of hooking the top first and then pulling the spring down to hook the bottom (with the bottom hook open to the left), you hook the bottom first (with the hook open to the right) and then lift the spring to hook the top.

Edgar H. Woodring
Fort Knox, Kentucky

(Ed Note—Must be a lot of Mechanic-types don't pay close attention to Figure 161 in TM 9-2320-211-20 (Mar 63).

AIR SETTING CHANGED




I CAN DO IT MYSELF!
IF IT'S TYPE 'D'

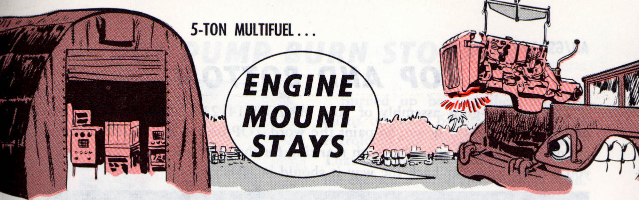
You'll be seeing a change in TM 9-2320-211-20 for your 5-ton truck's air compressor air governor setting. It's been upped to 125 PSI maximum. The old maximum, 120 PSI, is given in para 187 (d). Minimum stays at 105 PSI.

So how do you adjust the air governor if the setting's wrong? You don't if you've got the old Type O governor—it has to be replaced.

But you can adjust a Type D governor—Governor Assembly, Airbrake, FSN 2530-854-4457. This governor replaces a Type O Governor that can't be repaired.

5-TON MULTIFUEL . . .

ENGINE MOUNT STAYS



Hold onto that front mount—all of it—when you send your LDS 465-1 or LDS 465-1A engine off for repair or rebuild. These're the engines used in G744-series 5-ton trucks.

Some guys've slipped up on this deal, and now they're huntin' high 'n' low for front mounts for their replacement engines. The mount's not a part of the engine, so you don't get it with your replacement engine. Besides, the mount's a non-stock item, which means you have to bank on your cannibalization point if you lose yours.

Like it shows in Ch 1 (Jul 64) to TM 9-2320-211-20, you take the engine and mount out together. But once you get the engine out, take the mount off—all the parts, right down to the block—and put it back on the truck.

Then, when you get ready to install the replacement engine, take the mount off the truck, put it on the engine and set the whole works into place.

CHAIN-PAINT LINK-UP

Dear Half-Mast,

How should we preserve trailer safety chains, winch chains, and other link-type equipment — paint or lube?

Dear Mr. W. F. B.,

Local SOP should fit whatever keeps rust down and serviceability up, with costs considered.

You can paint safety chains and winch chains with a 2-coat system. Use prime coat FSN 8010-817-1214 and finish coat OD enamel FSN 8010-844-8088 (1 qt each, Fed Cat C8000-IL-A).

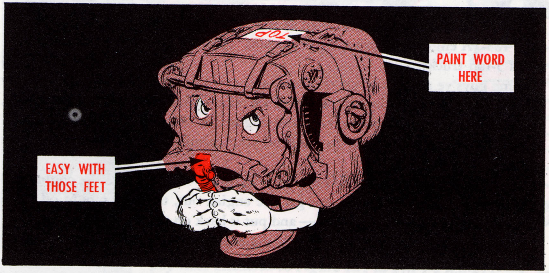
But tire chains, hoist, and working-type link equipment get lube only—any good preservative type (not old oil—that stuff is corrosive).

Half-Mast

PAINT OR LUBE DEPENDS ON LOCAL SOP!

TOP AND BOTTOM

The cowling-glass assembly of your AN/GSS-14 23-in Xenon searchlight can be put on upside down. So paint the word TOP on the top of the cowling assembly, or make some other such marking for the same purpose. This'll make you put the assembly back the way it should be, every time.



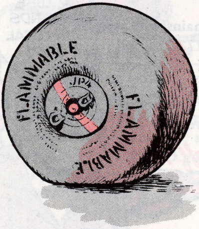
Footloose feet can bang, bash or bend the shock absorber on the truck-mounted Xenon searchlight.

Sure 'nuff, it's easy to get your feet all over the shock absorber, since it's pretty much out in the open.

But a little watchful maneuvering should take care of the problem all right. The important thing is:

Watch those footloose feet.

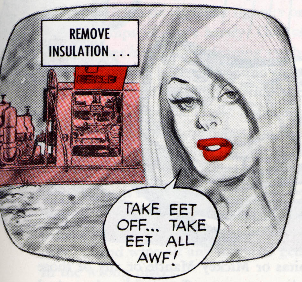
GOT THE RIGHT TAP?



Mixing fuels when you're not supposed to could cause the engine of your equipment to conk out. To make sure that doesn't happen to you, look for the grade of fuel stenciled on the 500-gal drum and be sure it's the right fuel for the piece of equipment that keeps you from walking.

Your 500-gal collapsible drums should have one of these markings: JP-4, AVGAS, MOGAS, or Diesel Fuel.

POL PUMP BURN STOPPER


REMOVE INSULATION . . .
TAKE EET OFF... TAKE EET ALL AWF!

Burned up because the insulation burns off your 6-inch Brielle PP113 Petroleum Pump engine hood or panel? That stuff can't take all that heat from the exhaust and it'll char, melt or burn.

Just take the insulation off and keep the side panel on the exhaust manifold side open as much as possible when running. Sure, the outside paint'll scorch off—but mox nix.

If you've got no tools to take off the insulation, ask your DS for help.

MAKE YOUR OWN . . .

TROUBLESHOOTER

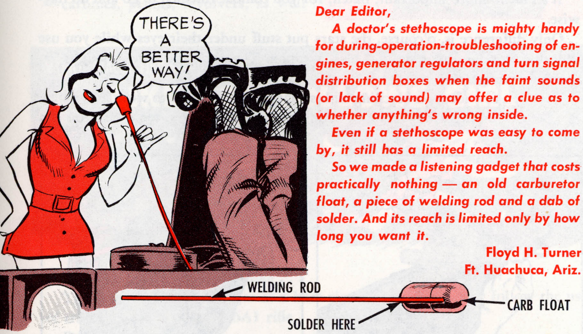
Dear Editor,

A doctor's stethoscope is mighty handy for during-operation-troubleshooting of engines, generator regulators and turn signal distribution boxes when the faint sounds (or lack of sound) may offer a clue as to whether anything's wrong inside.

Even if a stethoscope was easy to come by, it still has a limited reach.

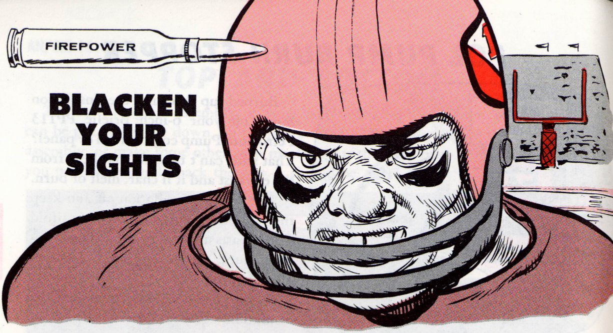
So we made a listening gadget that costs practically nothing—an old carburetor float, a piece of welding rod and a dab of solder. And its reach is limited only by how long you want it.

Floyd H. Turner
Ft. Huachuca, Ariz.



(Ed Note—That sounds—even without a stethoscope—like you're on the inside track with your troubleshooting. Take care, though, that you keep your listening gadget away from electrical connections. Electrical insulating tape or plastic tubing covering most of the rod (from the float to just short of the end) is good insurance against hooking your ear up in a short circuit. Whatever you use, keep it away from spinning components, such as belts, fans, pulleys, etc.)

BLACKEN YOUR SIGHTS

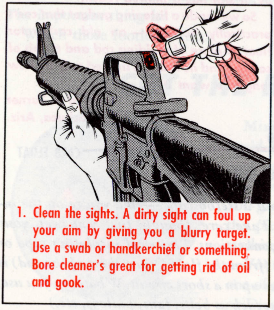


Nosiree, you'd never catch Johnny Unitas or Mickey Mantle or any of those guys going into battle without first putting on some stuff to cut the glare. And they're only sighting on championships and loot and reputation and such-like.

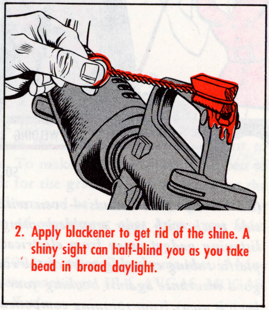
It's mucho more important, natch, for you combat riflemen to go and do likewise.

Only difference is, o'course, the stars put stuff under their eyes while you use it on the front and rear sight of your weapon. The aim's the same, though: To sharpen your game.

Here're a few ideas on blacking sights that'll help. Put 'em to work every time just before you head into action . . . and check 'em every so often when you can after that.



1. Clean the sights. A dirty sight can foul up your aim by giving you a blurry target. Use a swab or handkerchief or something. Bore cleaner's great for getting rid of oil and gook.

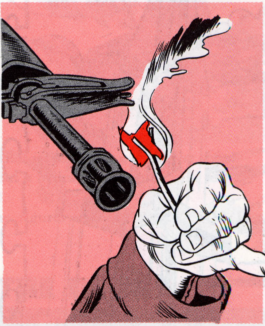


2. Apply blackener to get rid of the shine. A shiny sight can half-blind you as you take bead in broad daylight.

'Most anything that makes the sight black will do. Some guys use liquid shoe polish, matches or cigarette lighters or carbide lamps, if one's handy. One of the favorites is to take a cleaning swab, wet it good with bore cleaner and twist it like a wick. Then split a stick and shove the swab in the crack. Light this up and you'll get a good soot.

The trick with any fire, though, is to hold the sight at the point of the flame a few seconds till it turns black. Just be careful to black the areas around the peep hole or notch or on the blade or ears . . . and wipe off any soot that gets in the wrong places.

This sight-blackening deal, of course, goes for all shoulder and hand weapons —carbines, pistols, revolvers, as well as rifles. Incidentally, FM 23-71 (Dec 66) with 1 change—Rifle Marksmanship—has some good poop about this.



M16A1 TRACER FIRING—

LIKE BOY FOLLOWS GIRL

Like day follows night . . . like . . .

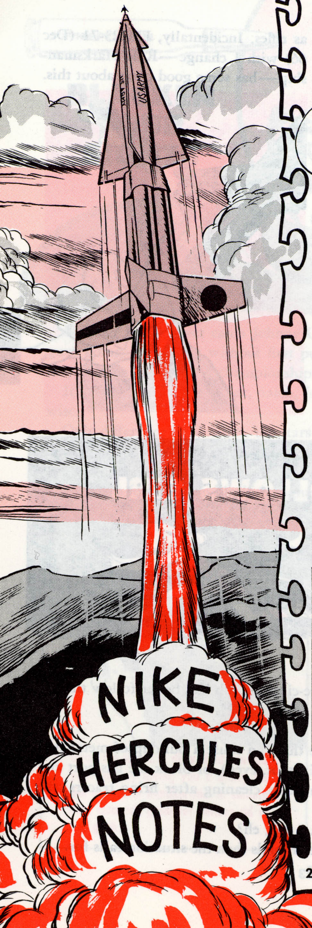
That's how your humdinger of a bore-cleaning job had better follow the use of tracer ammo in your M16A1 rifle.

Roger!

Tracers leave a coppering in the bore that can cause a buildup of metal that can tear bullets apart (makes 'em like birdshot, even), or block the gas port and put you out of business. The longer you delay cleaning after firing tracers, the tougher the job's going to be, too.

So, really get with it. An A-Plus-No. 1 job, eh?

'Nother tip: Try to fire no more tracer rounds than the situation calls for.

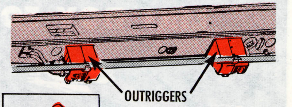

U.S. ARMY
NIKE
HERCULES
NOTES

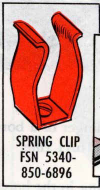
SEVERING RELATIONS?

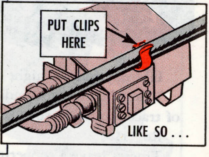
HMMP... SOME GIFT!
BUT, BABY-- THAT'S A CLIP, FSN 5340-850-6896.

The cable (P109C) that runs from your Nike-Hercules launcher erecting beam to the pre-launcher signal simulator can be cut to bits when you lower the beam if it gets caught under the launcher-handling rail outriggers.

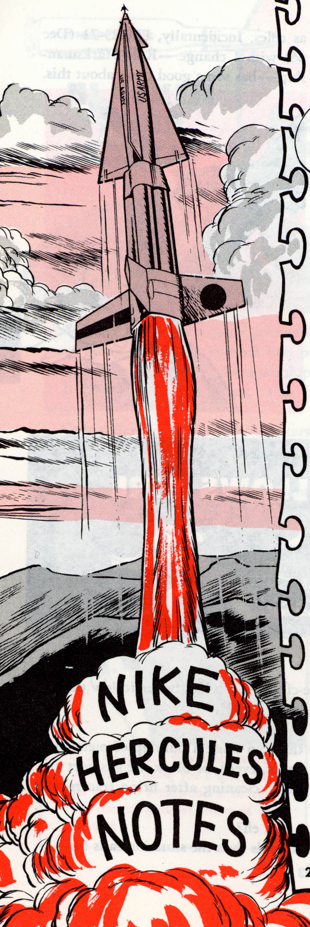
You can get a guy to hold on to the cables as you lower the beam and so keep 'em out of the way. Another way is to fasten a spring clip to the top of each outrigger and then run the cable through the clips.


OUTRIGGERS


SPRING CLIP
FSN 5340-850-6896


PUT CLIPS HERE
LIKE SO . . .

You'll find the clip on page 12 of TM 9-1440-250-15P/6/1 (Jun 67) — under FSN 5340-850-6896. Use the screw and lock washer in the cover plate of each outrigger to hold the clip in place.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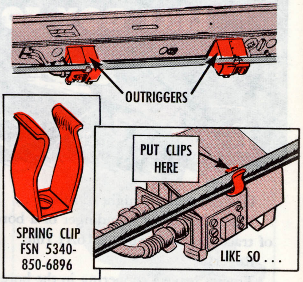
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APS OR HPU

IT DEPENDS WHAT'S IN YOUR BIRD!

Dear Half-Mast,

Just what is the right oil-pressure-gage setting on the portable oil fill and filter unit when we fill a Nike-Hercules missile? I read one thing in one place and something else in another.

SSG R. S.

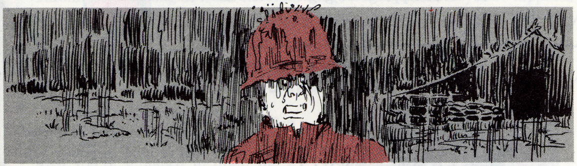
Dear Sergeant R. S.,

It all depends on what's in your bird. If it has an accessory power supply . . . then the setting is 150 PSI ± 10. But a hydraulic pumping unit in the missile means a setting of 110 PSI ± 10.

In other words, you go with the figures in TM 9-1410-250-12/1 (Nov 67).

Half-Mast

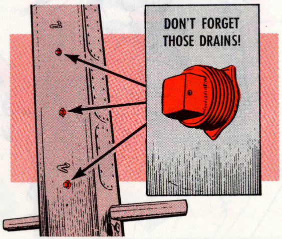
REMEMBER THE PLUGS



Way back when, support people riddled the bottom of Nike-Hercules launcher erecting beams with larger and new holes — according to the word in MWO Y75-W62 (Mar 60).

They enlarged the 14 holes already in the beam and added 3 new ones to make it easier for water to drain. They also added drain plugs to the 3 new holes — and there's the rub! Lotta units forget they're there!

Take the plugs out once a month so's the water will run out. If you're in a dry place, once every 2 months or so ought to do it. And if the rain beats against the sweat on your brow in your area, a weekly drain might be called for.


DON'T FORGET THOSE DRAINS!

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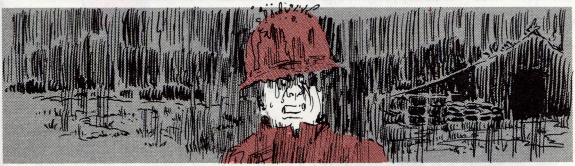

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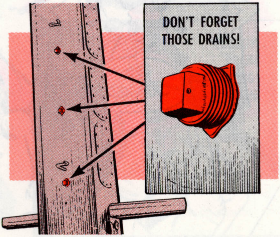
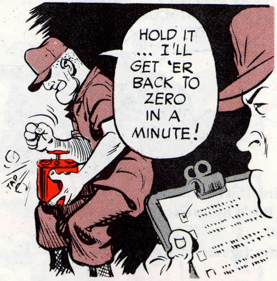
They enlarged the 14 holes already in the beam and added 3 new ones to make it easier for water to drain. They also added drain plugs to the 3 new holes—and there's the rub! Lotta units forget they're there!

Take the plugs out once a month so's the water will run out. If you're in a dry place, once every 2 months or so ought to do it. And if the rain beats against the sweat on your brow in your area, a weekly drain might be called for.


DON'T FORGET THOSE DRAINS!

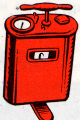
GIVE BREAK, NOT A GIG


HOLD IT ... I'LL GET 'ER BACK TO ZERO IN A MINUTE!
TAP

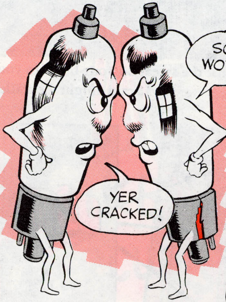
Hey there, Mr. Inspector . . . what's this they're saying about your gigging a Nike-Hercules outfit on its stagnation pressure and vacuum pump? You know . . . after the pressure is released, the needle on the gage doesn't return to "O" by itself. Then comes the gig.

When a guy uses the gage, he can get the needle to go to "O" by tapping the gage housing. And this is OK because the way the gage is made, the needle may need some help now and again if it's going to move.

Incidentally . . . the note to para 5 in TB 9-9503-1-1/1 (Sep 66) says about the same thing. That is, the TB talks about tapping the gage to move the needle.



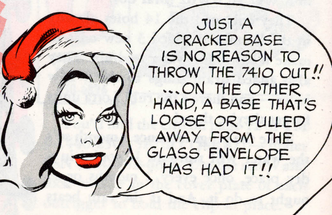
STILL GOOD


SO WOT!
YER CRACKED!

You think haste makes waste?

So does tossing away good 7410 electron tubes that're used in power supplies for your Nike-Hercules system.

Don't discard the 7410 with a cracked base, but make a note and watch it for further effects of heat and vibration.


JUST A CRACKED BASE IS NO REASON TO THROW THE 7410 OUT!! ...ON THE OTHER HAND, A BASE THAT'S LOOSE OR PULLED AWAY FROM THE GLASS ENVELOPE HAS HAD IT!!

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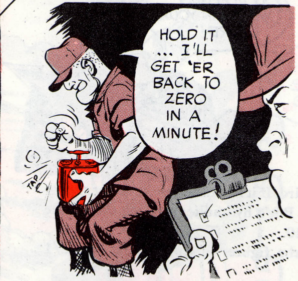
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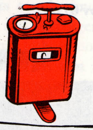

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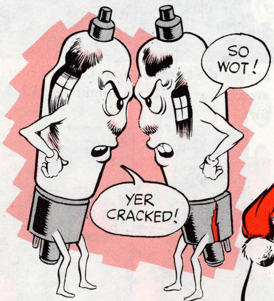
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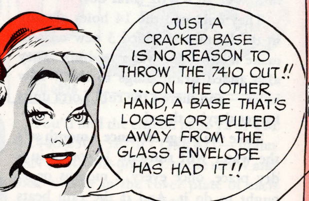
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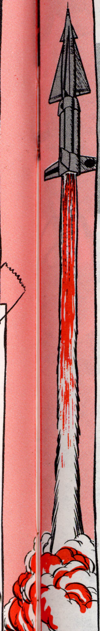


MAYBE METER, MAYBE NOT

Sure can set you to wondering—when your Nike-Hercules publications talk about making checks with a voltmeter. You're not sure whether voltmeter means a VTVM like the ME 30A/U . . . a multimeter such as the TS-352 . . . or whatever one you happen to have handy.

VOLTMETER OR MULTIMETER, MOX NIX--IT'S THE RIGHT RANGE AND FUNCTION THAT COUNTS.

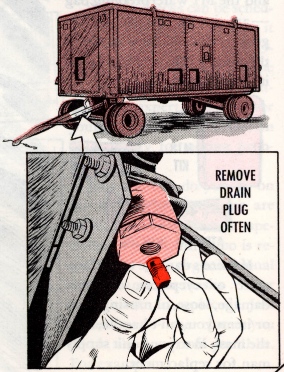
Wonder no more. When you read voltmeter, you can use any voltmeter or multimeter—as long as it has the right range and function. If you're supposed to use a VTVM, any electronic-type voltmeter or multimeter with the right range and function will do the job.

DRAIN THE FILTERS

OK . . . so TM 9-2330-212-14 (Sep 64) doesn't say anything about how often you're supposed to drain the 2 air filter assemblies for the air-over-hydraulic brake system on your Nike-Hercules trailers.

To be on the ball, you'll want to remove the plug from each assembly before every operation—even daily, if you're operatin' every day. A little condensation in the filters won't hurt a thing, but enough water to fill them could mess up the braking system—especially if it freezes and there is no way for the air to get through.

A dirty filter can get you in the same kind of trouble so remove and clean the filter at every "S" service.


REMOVE DRAIN PLUG OFTEN

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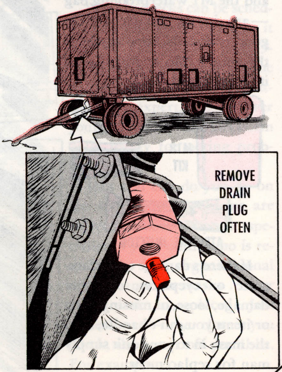

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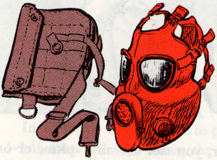
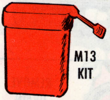
THE DAILY

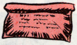
Daily PM amounts to a quick visual check for grime, damage, missing or loose parts on the mask and carrier, putting on the mask and clearing it to test for leaks and operation.



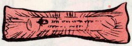
You also make sure the authorized accessories — the M13 deconning and reimpregnating kit, the 3 atropine injectors and the M1 waterproofing bag — are in the carrier and in good order. Be sure to check the hood — M6 or M6A2 — if it's authorized.



M13 KIT

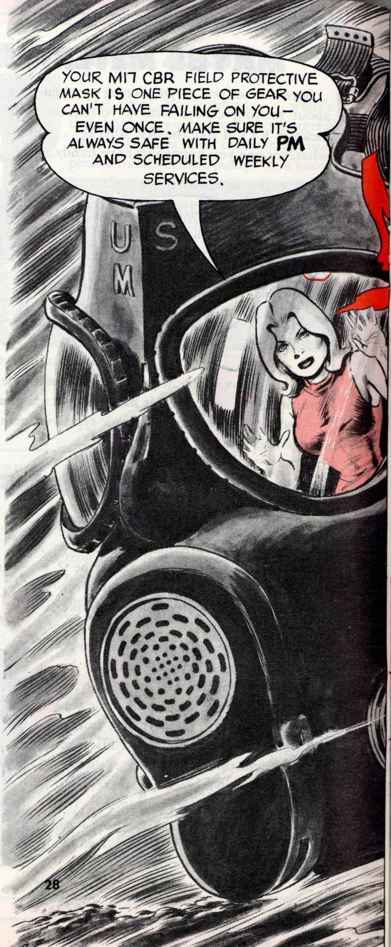


M1 WATERPROOF BAG



ATROPINE INJECTOR

If there's damage to the facepiece or eyepieces, or other damage, loose, or missing parts or items you can't handle, turn the mask in to your unit supply man for replacement.


YOUR M17 CBR FIELD PROTECTIVE MASK IS ONE PIECE OF GEAR YOU CAN'T HAVE FAILING ON YOU — EVEN ONCE. MAKE SURE IT'S ALWAYS SAFE WITH DAILY PM AND SCHEDULED WEEKLY SERVICES.
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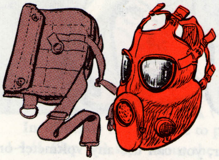

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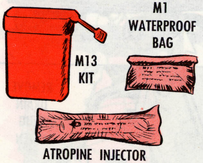
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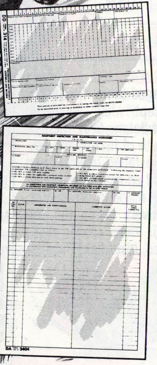
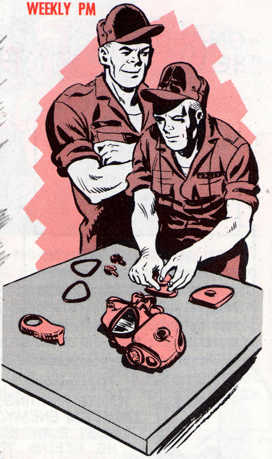
U S M
M17 MASK CARE
ARE YOU READY, CONNIE?


DD 314
DA 2404

WEEKLY PM

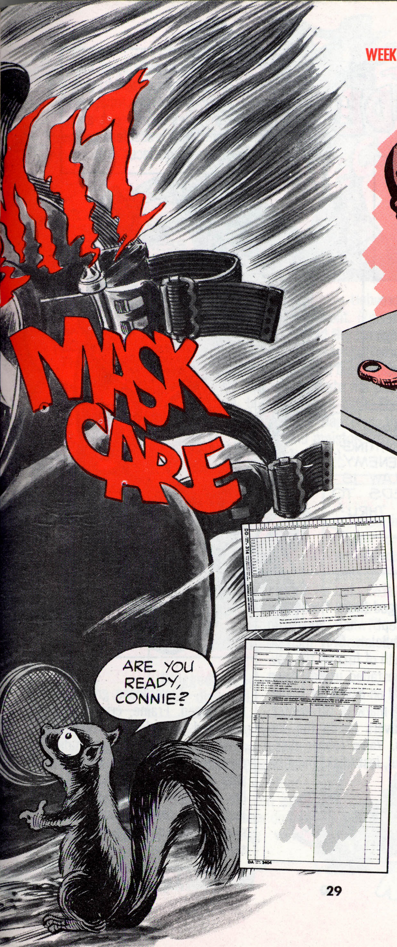


Weekly checks can be scheduled on DD Form 314, like it says in TM 38-750, para 3-3c(1). And, the weekly is done by-the-numbers, with the outfit's CBR expert looking over your shoulder — and DA Form 2404 handy for noting problems.

Jobs you can do you do on the spot; other problems are corrected soonest by the specialist in your outfit who is responsible for organizational maintenance on masks . . . or your mask is replaced. Just remember — the closer you check, the better off you'll be. For example.

P.S MORE

M17 MASK CARE


M17
MASK CARE
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EQUIPMENT INSPECTION AND MAINTENANCE WORKSHEET
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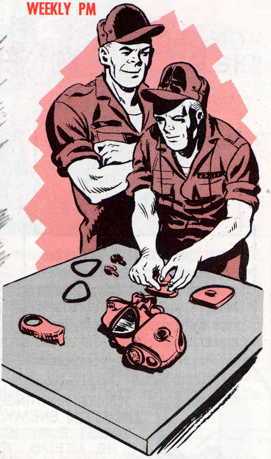

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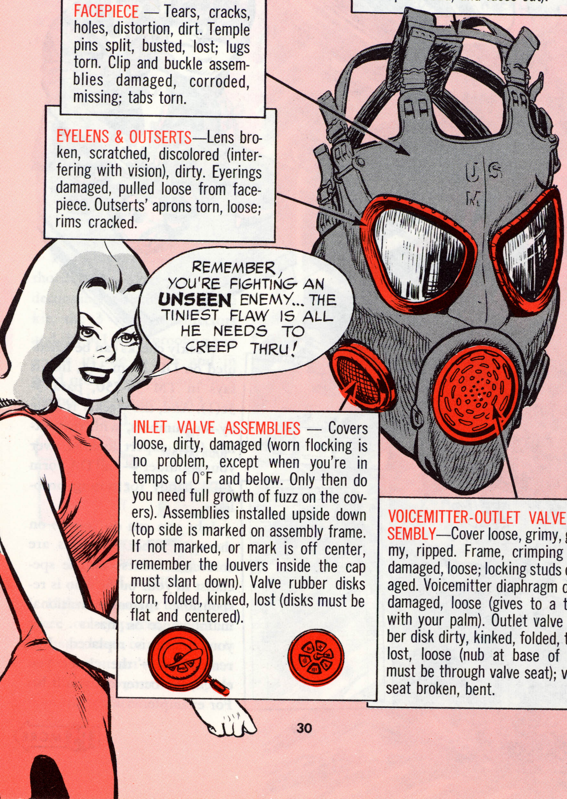
PS MORE

ON THE OUTSIDE

HARNESS—Canvas pad ripped, mildewed, dirty. Elastic straps frayed, floppy, dirty, metal tips missing. Harness installed inside out and upside down (short crosspiece goes on top of head, and faces out).

FACEPIECE — Tears, cracks, holes, distortion, dirt. Temple pins split, busted, lost; lugs torn. Clip and buckle assemblies damaged, corroded, missing; tabs torn.

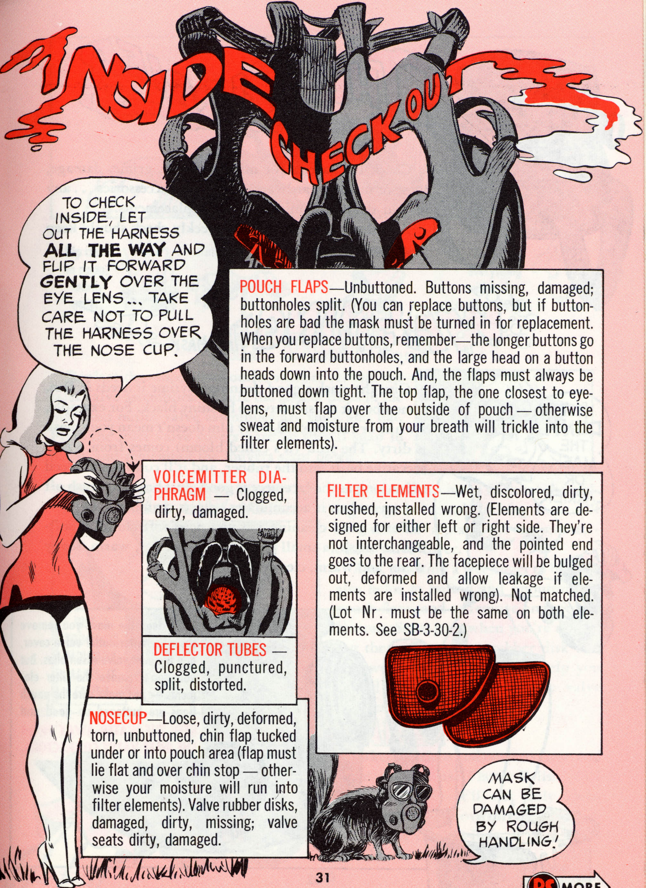
EYELENS & OUTSERTS—Lens broken, scratched, discolored (interfering with vision), dirty. Eyerings damaged, pulled loose from facepiece. Outserts' aprons torn, loose; rims cracked.


REMEMBER, YOU'RE FIGHTING AN **UNSEEN** ENEMY... THE TINIEST FLAW IS ALL HE NEEDS TO CREEP THRU!
US
M

INLET VALVE ASSEMBLIES — Covers loose, dirty, damaged (worn flocking is no problem, except when you're in temps of 0°F and below. Only then do you need full growth of fuzz on the covers). Assemblies installed upside down (top side is marked on assembly frame. If not marked, or mark is off center, remember the louvers inside the cap must slant down). Valve rubber disks torn, folded, kinked, lost (disks must be flat and centered).

VOICEMITTER-OUTLET VALVE ASSEMBLY—Cover loose, grimy, gummy, ripped. Frame, crimping ring damaged, loose; locking studs damaged. Voicemitter diaphragm dirty, damaged, loose (gives to a twist with your palm). Outlet valve rubber disk dirty, kinked, folded, torn, lost, loose (nub at base of disk must be through valve seat); valve seat broken, bent.

INSIDE CHECK OUT


TO CHECK INSIDE, LET OUT THE HARNESS **ALL THE WAY** AND FLIP IT FORWARD **GENTLY** OVER THE EYE LENS... TAKE CARE NOT TO PULL THE HARNESS OVER THE NOSE CUP.
MASK CAN BE DAMAGED BY ROUGH HANDLING!

POUCH FLAPS—Unbuttoned. Buttons missing, damaged; buttonholes split. (You can replace buttons, but if buttonholes are bad the mask must be turned in for replacement. When you replace buttons, remember—the longer buttons go in the forward buttonholes, and the large head on a button heads down into the pouch. And, the flaps must always be buttoned down tight. The top flap, the one closest to eyelens, must flap over the outside of pouch — otherwise sweat and moisture from your breath will trickle into the filter elements).

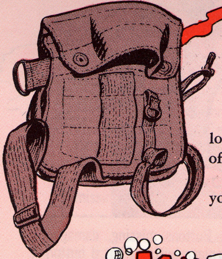
VOICEMITTER DIAPHRAGM — Clogged, dirty, damaged.

DEFLECTOR TUBES — Clogged, punctured, split, distorted.

NOSECUP—Loose, dirty, deformed, torn, unbuttoned, chin flap tucked under or into pouch area (flap must lie flat and over chin stop — otherwise your moisture will run into filter elements). Valve rubber disks, damaged, dirty, missing; valve seats dirty, damaged.

FILTER ELEMENTS—Wet, discolored, dirty, crushed, installed wrong. (Elements are designed for either left or right side. They're not interchangeable, and the pointed end goes to the rear. The facepiece will be bulged out, deformed and allow leakage if elements are installed wrong). Not matched. (Lot Nr. must be the same on both elements. See SB-3-30-2.)

PS MORE

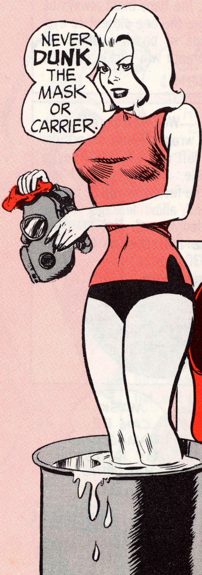


THE CARRIER

Check the carrier for mildew, wear, grime, damage, loose or missing hardware. How about accessories . . . any of 'em damaged, missing? Get replacements.

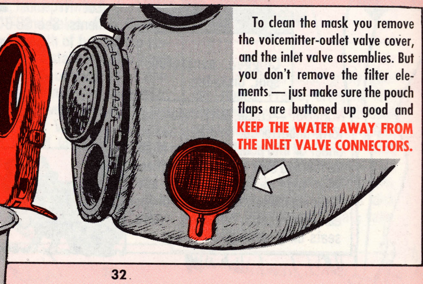
And that's about it. A good weekly check should keep your mask in top shape.

WASHING THE MASK

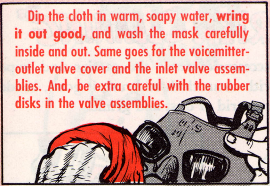

NEVER DUNK THE MASK OR CARRIER.

Give the mask a good cleaning anytime it needs it. But, remember, it doesn't have to be shiny black. For example, a white or rust-colored waxy film doesn't mean your mask is dirty. The stuff (it's called bloom) comes from a preservative built into the rubber, and it'll continue to bleed off as long as the facepiece is good. Just brush or wash off the wax when it accumulates or gets crumbly.

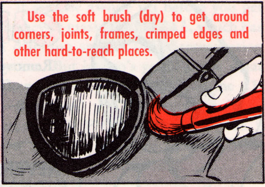
For a good cleaning job you need soft cloths, a soft-bristle brush (a small paint brush will do), warm, soapy water and warm, clear rinse water.



To clean the mask you remove the voicemitter-outlet valve cover, and the inlet valve assemblies. But you don't remove the filter elements — just make sure the pouch flaps are buttoned up good and **KEEP THE WATER AWAY FROM THE INLET VALVE CONNECTORS.**

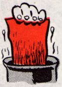


Dip the cloth in warm, soapy water, **wring it out good,** and wash the mask carefully inside and out. Same goes for the voicemitter-outlet valve cover and the inlet valve assemblies. And, be extra careful with the rubber disks in the valve assemblies.

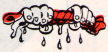


Use the soft brush (dry) to get around corners, joints, frames, crimped edges and other hard-to-reach places.

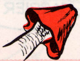
Dip cloth in clean, warm water,



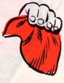
wring it dry,



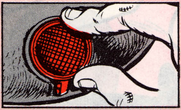
and wipe all washed parts.



Then dry everything with a dry, clean cloth.

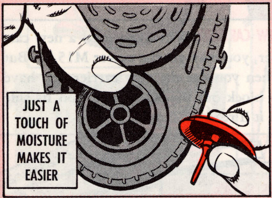


ALL DONE...?



Replace the voicemitter-outlet valve cover and the inlet valve assemblies. Be sure the rubber disks in the inlet and outlet valve assemblies are snug and flat. Press the inlet valve covers hard so they'll snap in place, and remember the louvers slant down.

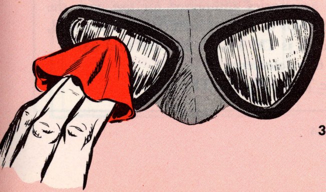
FINGER TIP HELP


JUST A TOUCH OF MOISTURE MAKES IT EASIER

If you touch a moist finger to the sealing ring, frame and locking studs it'll be easier to replace the voicemitter-outlet valve cover.

And, touching a wet finger to buttons also helps to button and unbutton the pouch flaps, and to remove and replace buttons. Same goes when you're replacing the outlet valve's rubber disk . . . just wet the disk's pigtail to help you thread the pigtail through the valve seat center.

LENS CLEANER

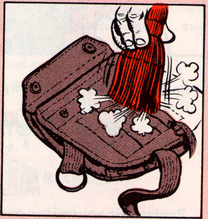


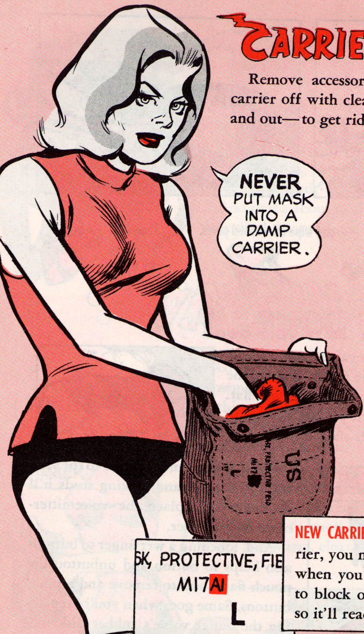
To keep eyelens and outserts clean and clear you can use Plastic Polish, FSN 7930-634-5340. It'll not only clean the lenses, it'll remove surface scratches. It's a GSA catalog item, it comes in a pint bottle and costs 33 cents.

PS MORE

CARRIER CLEANING

Remove accessories from the carrier and wipe carrier off with clean cloth or brush it good, inside and out—to get rid of dust and grime.




NEVER PUT MASK INTO A DAMP CARRIER.
US
M17
SK, PROTECTIVE, FIE
M17A1
L

Inspect all accessories and replace 'em in proper pockets. Nestle harness inside mask and place mask in carrier heads-up and with its nose facing the carrier closing flap.

NEW CARRIER? When you need a new carrier, you may get the newer M15A1. But when you use the new carrier you have to block out the A1 stamped on its side so it'll read M17 mask.

TF 3-3203
PUBS & TA's
TM 3-4240-202-15
TM 3-4240-202-25P

The M17 mask, the carrier and the accessories authorized for use with the mask are covered in TM 3-4240-202-15 (Nov 62) with Changes 3, 5 and 6. And, the new repair parts manual for the mask is TM 3-4240-202-25P (Jul 68).

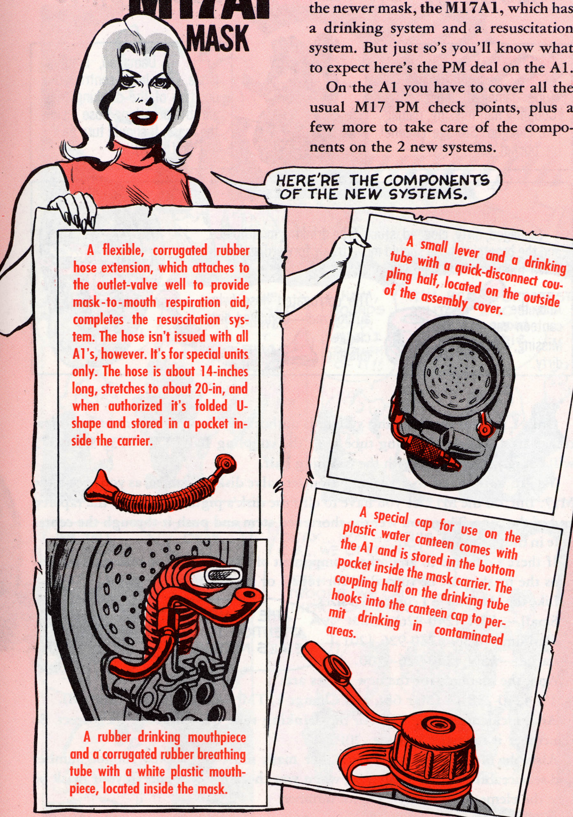
SB 3-30-2 (Jan 68) lists serviceable filter elements.

And, for training films on the M17 see TF 3-3203 and TF 3-3204.

M17A1 MASK

It may be awhile yet before you get the newer mask, **the M17A1**, which has a drinking system and a resuscitation system. But just so's you'll know what to expect here's the PM deal on the A1.

On the A1 you have to cover all the usual M17 PM check points, plus a few more to take care of the components on the 2 new systems.


HERE'RE THE COMPONENTS OF THE NEW SYSTEMS.

A flexible, corrugated rubber hose extension, which attaches to the outlet-valve well to provide mask-to-mouth respiration aid, completes the resuscitation system. The hose isn't issued with all A1's, however. It's for special units only. The hose is about 14-inches long, stretches to about 20-in, and when authorized it's folded U-shape and stored in a pocket inside the carrier.

A small lever and a drinking tube with a quick-disconnect coupling half, located on the outside of the assembly cover.

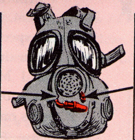
A rubber drinking mouthpiece and a corrugated rubber breathing tube with a white plastic mouthpiece, located inside the mask.

A special cap for use on the plastic water canteen comes with the A1 and is stored in the bottom pocket inside the mask carrier. The coupling half on the drinking tube hooks into the canteen cap to permit drinking in contaminated areas.

PS MORE

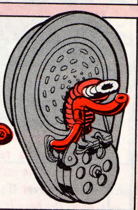
CLOSE-UP ON PM CHECK POINTS

DRINKING TUBE & QUICK-DISCONNECT COUPLING HALF— Tube damaged, loose, dirty. Coupling half missing, damaged, clogged. Storage channel or pocket split, dirty.

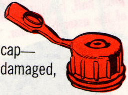


LEVER — Damaged, binding, loose. (The lever controls the position of the drinking tube and the breathing hose inside the mask. It should turn easily left and right).

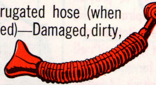
DRINKING MOUTHPIECE & CORRUGATED BREATHING HOSE — Damaged, dirty, clogged, stuck. (The drinking mouthpiece and the breathing hose should move freely forward and back when the lever is turned left or right.)



And, the canteen cap—Missing, damaged, dirty.



The corrugated hose (when authorized)—Damaged, dirty, clogged, missing.



REPLACING PARTS

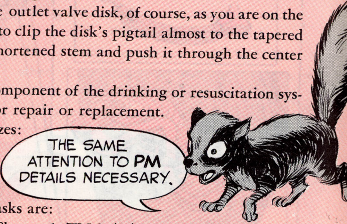
Only 1 part in the drinking system is authorized for replacement at organizational level. It's the drinking tube with the coupling half. FSN 4730-903-4573 will bring you the tube with the coupling half.

You're authorized to replace the outlet valve disk, of course, as you are on the M17. But, on the M17A1 you have to clip the disk's pigtail almost to the tapered end of the cone. Then you wet the shortened stem and push it through the center hole in the outlet valve seat.

If there's damage to any other component of the drinking or resuscitation systems the mask must be turned in for repair or replacement.

Like the M17, the A1 comes in 3 sizes:

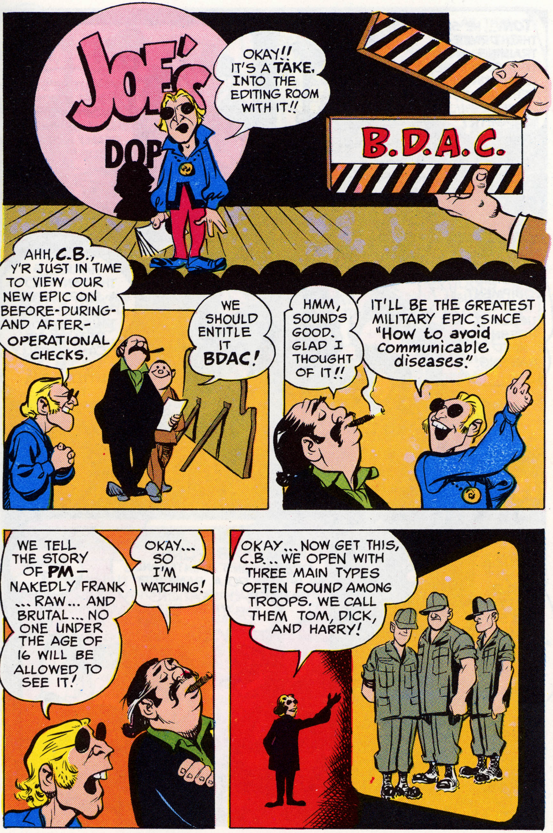
Small — FSN 4240-926-4199.
Medium — FSN 4240-926-4201.
Large — FSN 4240-926-4200.

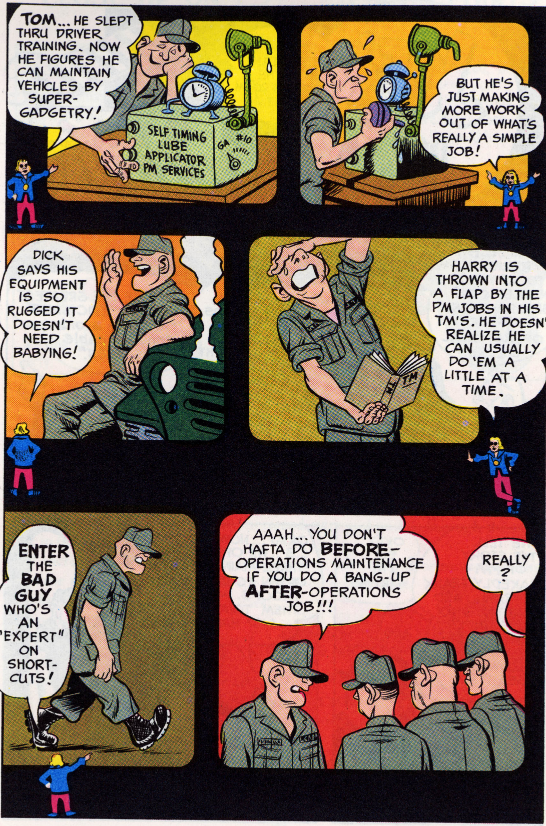

THE SAME ATTENTION TO PM DETAILS NECESSARY.

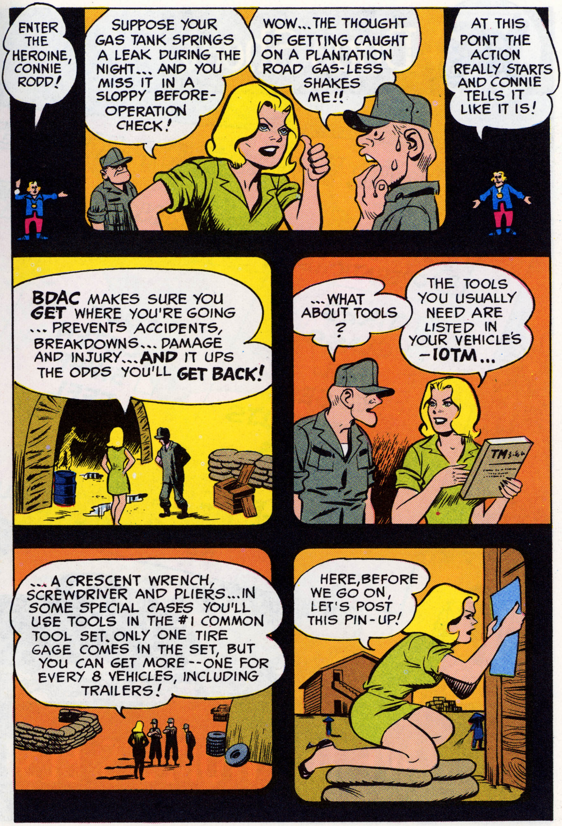
And, the manuals for the new masks are:
TM 3-4240-258-14 (Mar 68), and Change 1. TM 3-4240-258-20P (Mar 68).

And, incidentally, the FSN for the drinking tube quoted above, is correct. So remember it for page 7 of the -20P.

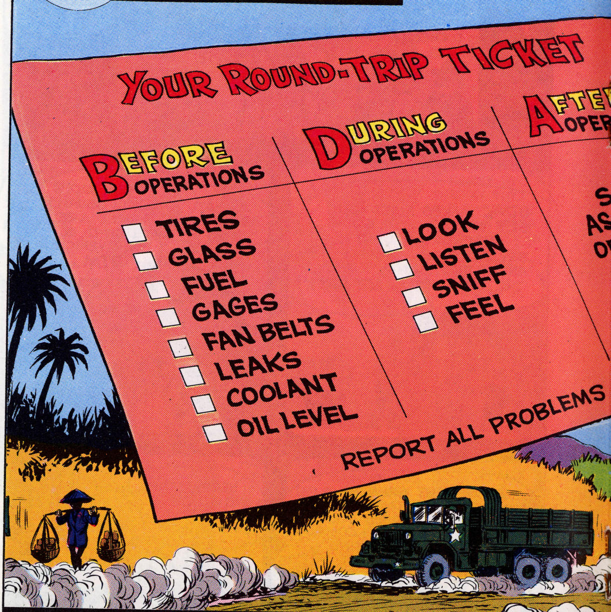
Also, the filter elements used in either mask must be checked for lot number and serviceability in SB 3-30-2. So, when you check the elements in your mask be sure the elements bear the same lot number.


JOE'S
DOP
OKAY!! IT'S A TAKE. INTO THE EDITING ROOM WITH IT!!
B.D.A.C.
AHH, C.B., Y'R JUST IN TIME TO VIEW OUR NEW EPIC ON BEFORE-DURING-AND AFTER-OPERATIONAL CHECKS.
WE SHOULD ENTITLE IT BDAC!
HMM, SOUNDS GOOD. GLAD I THOUGHT OF IT!!
IT'LL BE THE GREATEST MILITARY EPIC SINCE "How to avoid communicable diseases."
WE TELL THE STORY OF PM — NAKEDLY FRANK ... RAW ... AND BRUTAL ... NO ONE UNDER THE AGE OF 16 WILL BE ALLOWED TO SEE IT!
OKAY... SO I'M WATCHING!
OKAY ... NOW GET THIS, C.B. .. WE OPEN WITH THREE MAIN TYPES OFTEN FOUND AMONG TROOPS. WE CALL THEM TOM, DICK, AND HARRY!


TOM... HE SLEPT THRU DRIVER TRAINING. NOW HE FIGURES HE CAN MAINTAIN VEHICLES BY SUPER-GADGETRY!
SELF TIMING LUBE APPLICATOR PM SERVICES
GA #10
BUT HE'S JUST MAKING MORE WORK OUT OF WHAT'S REALLY A SIMPLE JOB!
DICK SAYS HIS EQUIPMENT IS SO RUGGED IT DOESN'T NEED BABYING!
HARRY IS THROWN INTO A FLAP BY THE PM JOBS IN HIS TM'S. HE DOESN'T REALIZE HE CAN USUALLY DO 'EM A LITTLE AT A TIME.
TM
ENTER THE BAD GUY WHO'S AN "EXPERT" ON SHORT-CUTS!
AAAH... YOU DON'T HAFTA DO BEFORE-OPERATIONS MAINTENANCE IF YOU DO A BANG-UP AFTER-OPERATIONS JOB!!!
REALLY?

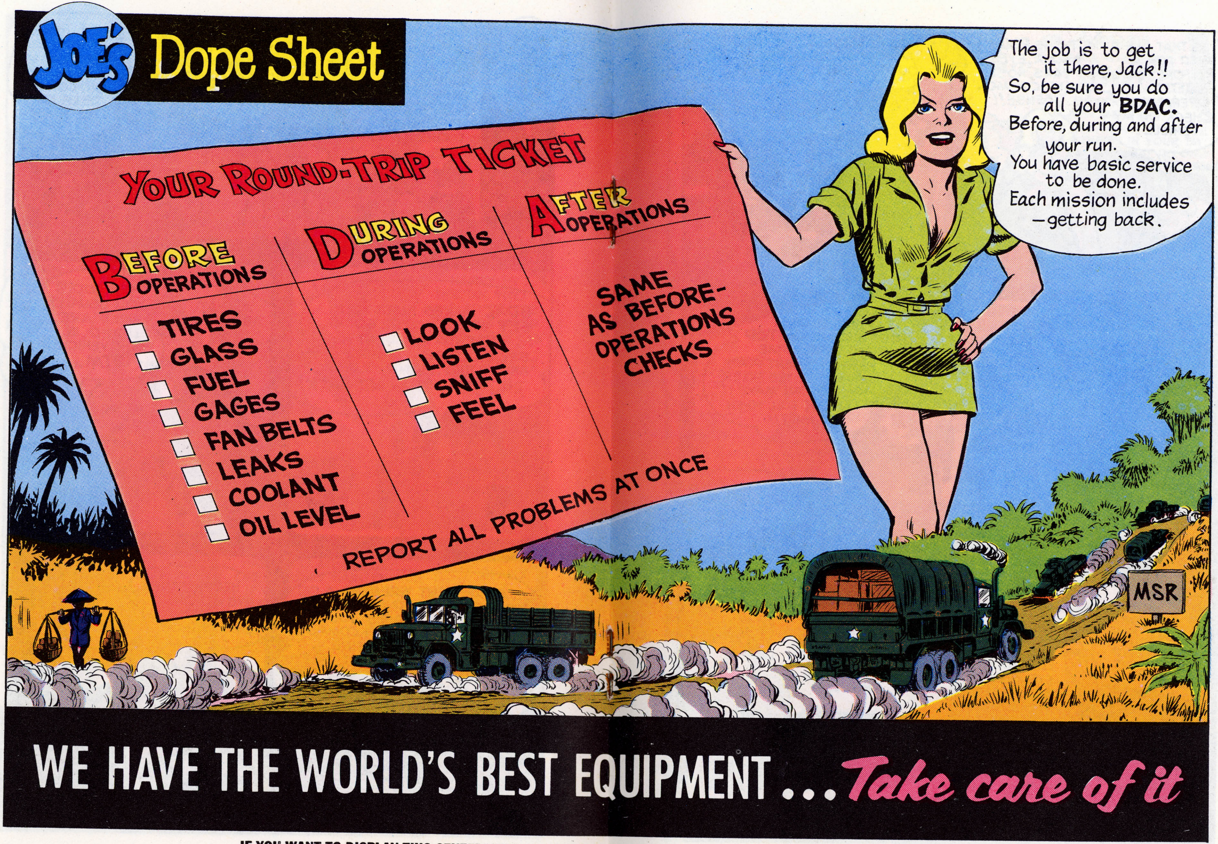

ENTER THE HEROINE, CONNIE RODD!
SUPPOSE YOUR GAS TANK SPRINGS A LEAK DURING THE NIGHT... AND YOU MISS IT IN A SLOPPY BEFORE-OPERATION CHECK!
WOW...THE THOUGHT OF GETTING CAUGHT ON A PLANTATION ROAD GAS-LESS SHAKES ME!!
AT THIS POINT THE ACTION REALLY STARTS AND CONNIE TELLS IT LIKE IT IS!
BDAC MAKES SURE YOU GET WHERE YOU'RE GOING ... PREVENTS ACCIDENTS, BREAKDOWNS... DAMAGE AND INJURY...AND IT UPS THE ODDS YOU'LL GET BACK!
...WHAT ABOUT TOOLS?
THE TOOLS YOU USUALLY NEED ARE LISTED IN YOUR VEHICLE'S -10TM...
TM
...A CRESCENT WRENCH, SCREWDRIVER AND PLIERS...IN SOME SPECIAL CASES YOU'LL USE TOOLS IN THE #1 COMMON TOOL SET. ONLY ONE TIRE GAGE COMES IN THE SET, BUT YOU CAN GET MORE--ONE FOR EVERY 8 VEHICLES, INCLUDING TRAILERS!
HERE, BEFORE WE GO ON, LET'S POST THIS PIN-UP!

JOE'S Dope Sheet

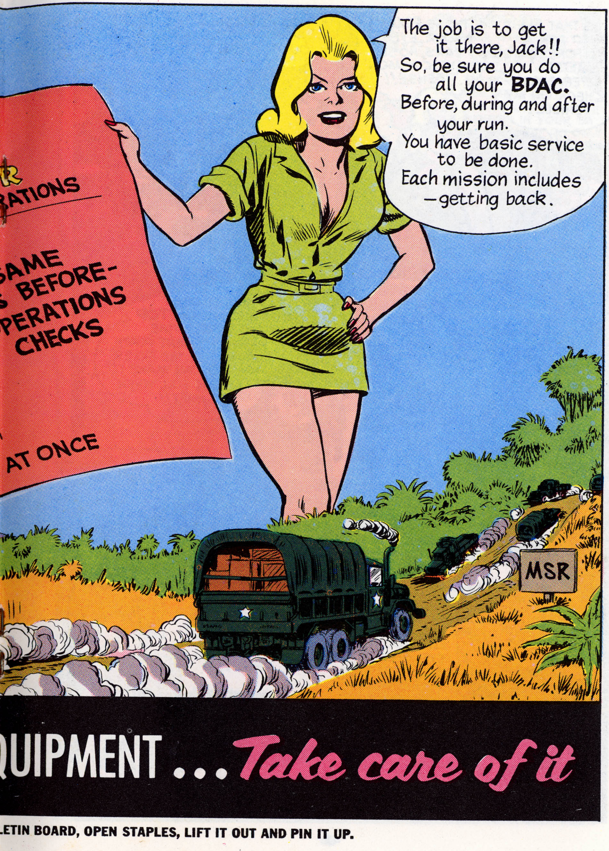

YOUR ROUND-TRIP TICKET
BEFORE OPERATIONS
☐ TIRES
☐ GLASS
☐ FUEL
☐ GAGES
☐ FAN BELTS
☐ LEAKS
☐ COOLANT
☐ OIL LEVEL
DURING OPERATIONS
☐ LOOK
☐ LISTEN
☐ SNIFF
☐ FEEL
AFTE
OPER
REPORT ALL PROBLEMS

WE HAVE THE WORLD'S BEST EQ

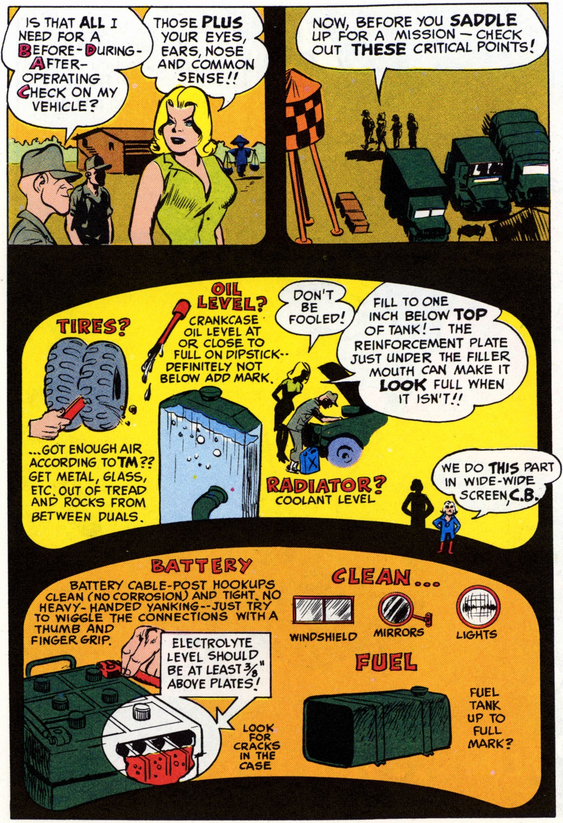
IF YOU WANT TO DISPLAY THIS CENTERPIECE ON YOUR BULL

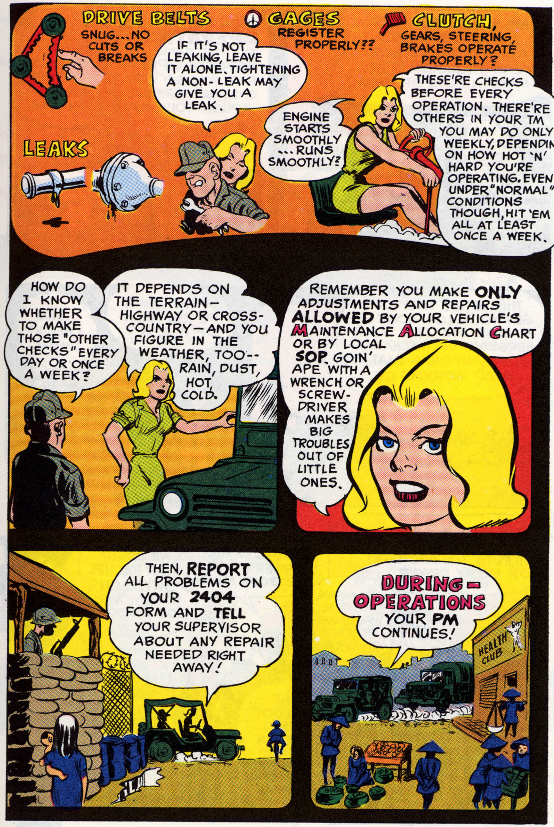

JOE'S Dope Sheet
YOUR ROUND-TRIP TICKET
BEFORE OPERATIONS
☐ TIRES
☐ GLASS
☐ FUEL
☐ GAGES
☐ FAN BELTS
☐ LEAKS
☐ COOLANT
☐ OIL LEVEL
DURING OPERATIONS
☐ LOOK
☐ LISTEN
☐ SNIFF
☐ FEEL
AFTER OPERATIONS
SAME AS BEFORE-OPERATIONS CHECKS
REPORT ALL PROBLEMS AT ONCE
The job is to get it there, Jack!! So, be sure you do all your BDAC. Before, during and after your run. You have basic service to be done. Each mission includes —getting back.
MSR
WE HAVE THE WORLD'S BEST EQUIPMENT ... Take care of it

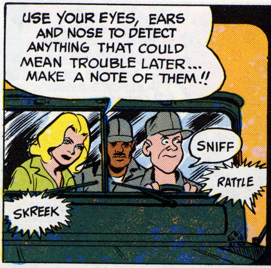
IF YOU WANT TO DISPLAY THIS CENTERPIECE ON YOUR BULLETIN BOARD, OPEN STAPLES, LIFT IT OUT AND PIN IT UP.

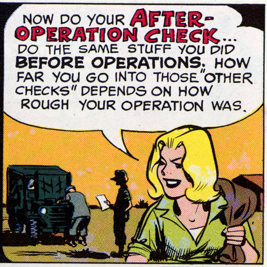

The job is to get it there, Jack!! So, be sure you do all your BDAC. Before, during and after your run. You have basic service to be done. Each mission includes —getting back.
R
RATIONS
SAME
S BEFORE-
PERATIONS
CHECKS
AT ONCE
MSR
QUIPMENT ... Take care of it

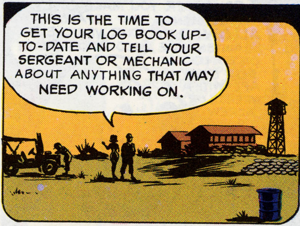
LETIN BOARD, OPEN STAPLES, LIFT IT OUT AND PIN IT UP.

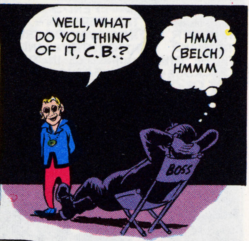

IS THAT ALL I NEED FOR A BEFORE-DURING-AFTER-OPERATING CHECK ON MY VEHICLE?
THOSE PLUS YOUR EYES, EARS, NOSE AND COMMON SENSE!!
NOW, BEFORE YOU SADDLE UP FOR A MISSION — CHECK OUT THESE CRITICAL POINTS!
TIRES?
...GOT ENOUGH AIR ACCORDING TO TM?? GET METAL, GLASS, ETC. OUT OF TREAD AND ROCKS FROM BETWEEN DUALS.
OIL LEVEL?
CRANKCASE OIL LEVEL AT OR CLOSE TO FULL ON DIPSTICK--DEFINITELY NOT BELOW ADD MARK.
DON'T BE FOOLED!
FILL TO ONE INCH BELOW TOP OF TANK! — THE REINFORCEMENT PLATE JUST UNDER THE FILLER MOUTH CAN MAKE IT LOOK FULL WHEN IT ISN'T!!
RADIATOR?
COOLANT LEVEL
WE DO THIS PART IN WIDE-WIDE SCREEN, C.B.
BATTERY
BATTERY CABLE-POST HOOKUPS CLEAN (NO CORROSION) AND TIGHT. NO HEAVY-HANDED YANKING--JUST TRY TO WIGGLE THE CONNECTIONS WITH A THUMB AND FINGER GRIP.
ELECTROLYTE LEVEL SHOULD BE AT LEAST 3/8" ABOVE PLATES!
LOOK FOR CRACKS IN THE CASE
CLEAN...
WINDSHIELD
MIRRORS
LIGHTS
FUEL
FUEL TANK UP TO FULL MARK?

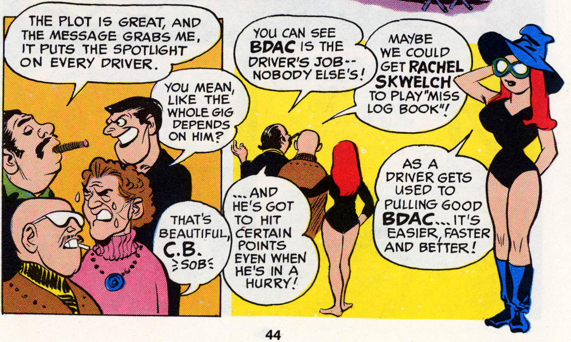

DRIVE BELTS
SNUG...NO CUTS OR BREAKS
IF IT'S NOT LEAKING, LEAVE IT ALONE. TIGHTENING A NON-LEAK MAY GIVE YOU A LEAK.
GAGES
REGISTER PROPERLY??
CLUTCH,
GEARS, STEERING, BRAKES OPERATE PROPERLY?
LEAKS
ENGINE STARTS SMOOTHLY ...RUNS SMOOTHLY?
THESE'RE CHECKS BEFORE EVERY OPERATION. THERE'RE OTHERS IN YOUR TM YOU MAY DO ONLY WEEKLY, DEPENDIN' ON HOW HOT 'N' HARD YOU'RE OPERATING. EVEN UNDER "NORMAL" CONDITIONS THOUGH, HIT 'EM ALL AT LEAST ONCE A WEEK.
HOW DO I KNOW WHETHER TO MAKE THOSE "OTHER CHECKS" EVERY DAY OR ONCE A WEEK?
IT DEPENDS ON THE TERRAIN— HIGHWAY OR CROSS-COUNTRY—AND YOU FIGURE IN THE WEATHER, TOO-- RAIN, DUST, HOT, COLD.
REMEMBER YOU MAKE **ONLY** ADJUSTMENTS AND REPAIRS **ALLOWED** BY YOUR VEHICLE'S **M**AINTENANCE **A**LLOCATION **C**HART OR BY LOCAL **SOP**. GOIN' APE WITH A WRENCH OR SCREW-DRIVER MAKES BIG TROUBLES OUT OF LITTLE ONES.
THEN, **REPORT** ALL PROBLEMS ON YOUR **2404** FORM AND **TELL** YOUR SUPERVISOR ABOUT ANY REPAIR NEEDED RIGHT AWAY!
DURING-OPERATIONS YOUR **PM** CONTINUES!
HEALTH CLUB


USE YOUR EYES, EARS AND NOSE TO DETECT ANYTHING THAT COULD MEAN TROUBLE LATER... MAKE A NOTE OF THEM!!
SNIFF
RATTLE
SKREEK


NOW DO YOUR AFTER-OPERATION CHECK... DO THE SAME STUFF YOU DID BEFORE OPERATIONS. HOW FAR YOU GO INTO THOSE "OTHER CHECKS" DEPENDS ON HOW ROUGH YOUR OPERATION WAS.

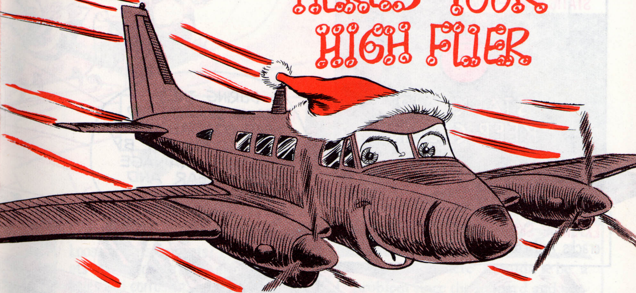

THIS IS THE TIME TO GET YOUR LOG BOOK UP-TO-DATE AND TELL YOUR SERGEANT OR MECHANIC ABOUT ANYTHING THAT MAY NEED WORKING ON.


WELL, WHAT DO YOU THINK OF IT, C.B.?
HMM (BELCH) HMMM
BOSS


THE PLOT IS GREAT, AND THE MESSAGE GRABS ME, IT PUTS THE SPOTLIGHT ON EVERY DRIVER.
YOU MEAN, LIKE THE WHOLE GIG DEPENDS ON HIM?
THAT'S BEAUTIFUL, C.B. SOB
YOU CAN SEE BDAC IS THE DRIVER'S JOB--NOBODY ELSE'S!
...AND HE'S GOT TO HIT CERTAIN POINTS EVEN WHEN HE'S IN A HURRY!
MAYBE WE COULD GET RACHEL SKWELCH TO PLAY "MISS LOG BOOK"!
AS A DRIVER GETS USED TO PULLING GOOD BDAC... IT'S EASIER, FASTER AND BETTER!

UTE(U-21A) MECHANICS . . .

HERE'S YOUR HIGH FLIER



Hey there, man, get set for a new experience when this sleek bird comes in to roost. The newest addition to the fixed-wing fleet has a lot of get-up-and-go, supplied by two turboprop engines.

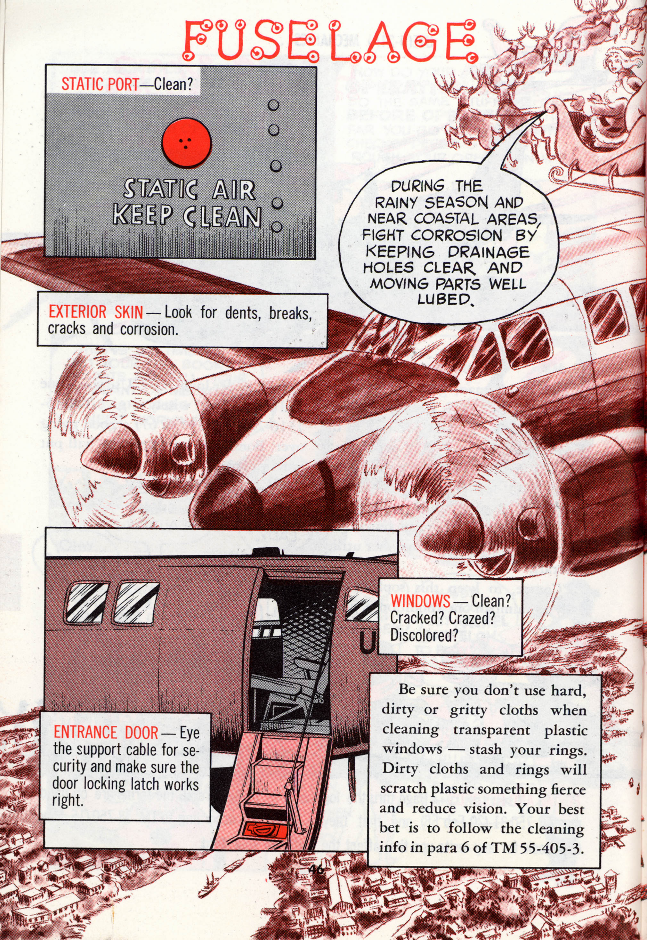
With full-feathering reversible-pitch props, king-size brakes, a simplified fuel system and an oxygen system you have features not found on other utility aircraft.

'Course, to keep this sophisticated lady in numbah one condition is going to take tender lovin' care. Use your time and play money wisely—give TM 55-1510-209-20 (23 Oct 67) a good going over. Boning up on your baby will put you in the know.

SIGN HERE, LADY.
SHE'S BEAUTIFUL!
WHO, CONNIE?
NO, THE PLANE

FORMS AND RECORDS—Page thru the log book to make sure all the forms are on hand per AR 750-31 (20 Feb 68) and that they're filled out according to TM 38-750 (15 May 67). Look for any write-ups that affect the status of your bird.

FUSELAGE


STATIC AIR
KEEP CLEAN
DURING THE RAINY SEASON AND NEAR COASTAL AREAS, FIGHT CORROSION BY KEEPING DRAINAGE HOLES CLEAR AND MOVING PARTS WELL LUBED.
U

STATIC PORT—Clean?

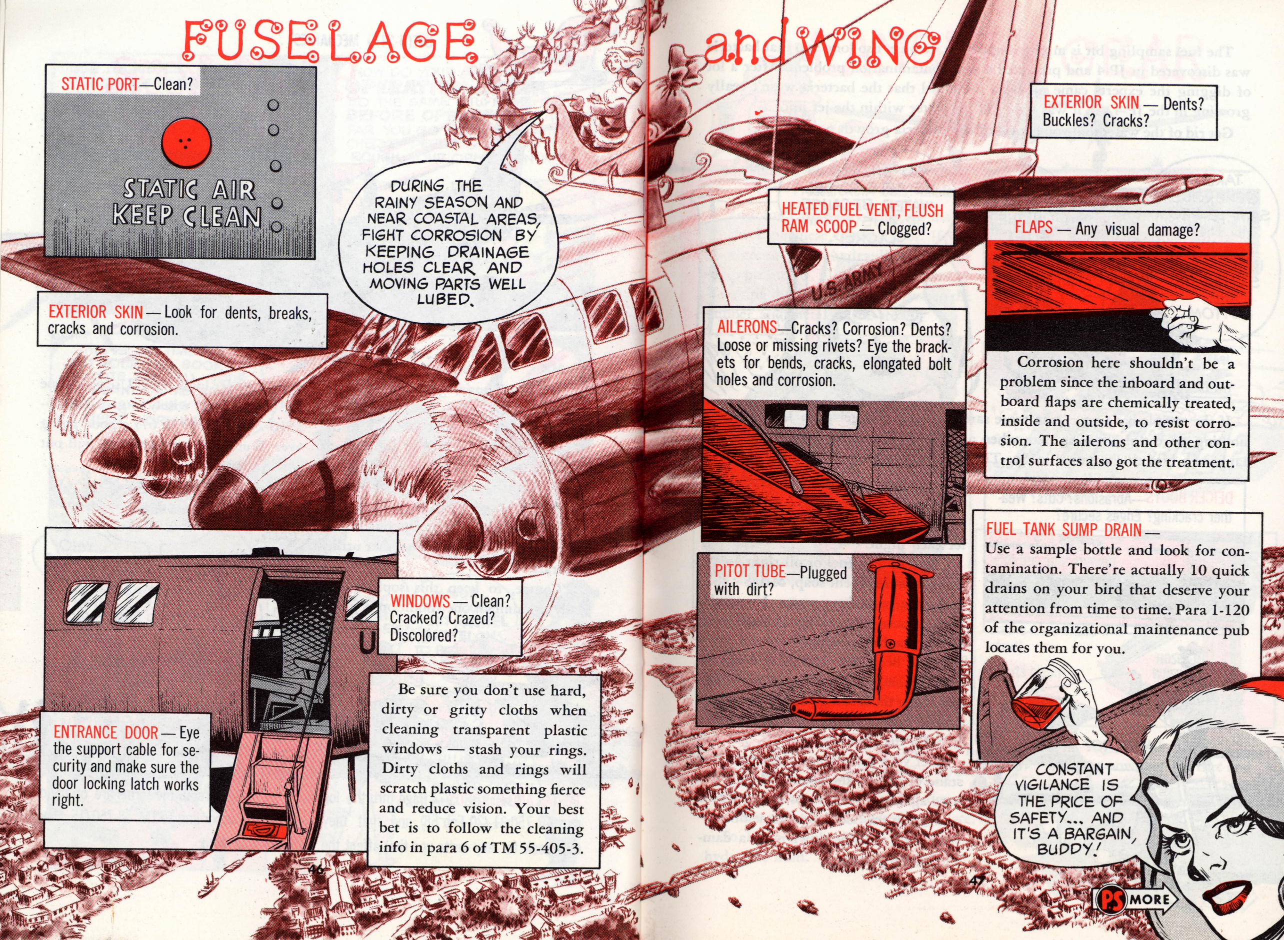
EXTERIOR SKIN—Look for dents, breaks, cracks and corrosion.

WINDOWS—Clean? Cracked? Crazed? Discolored?

ENTRANCE DOOR—Eye the support cable for security and make sure the door locking latch works right.

Be sure you don't use hard, dirty or gritty cloths when cleaning transparent plastic windows — stash your rings. Dirty cloths and rings will scratch plastic something fierce and reduce vision. Your best bet is to follow the cleaning info in para 6 of TM 55-405-3.

FUSELAGE and WING


STATIC AIR
KEEP CLEAN
DURING THE RAINY SEASON AND NEAR COASTAL AREAS, FIGHT CORROSION BY KEEPING DRAINAGE HOLES CLEAR AND MOVING PARTS WELL LUBED.
U.S. ARMY
CONSTANT VIGILANCE IS THE PRICE OF SAFETY... AND IT'S A BARGAIN, BUDDY!

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EXTERIOR SKIN—Dents? Buckles? Cracks?

HEATED FUEL VENT, FLUSH RAM SCOOP—Clogged?

FLAPS—Any visual damage?

Corrosion here shouldn't be a problem since the inboard and outboard flaps are chemically treated, inside and outside, to resist corrosion. The ailerons and other control surfaces also got the treatment.

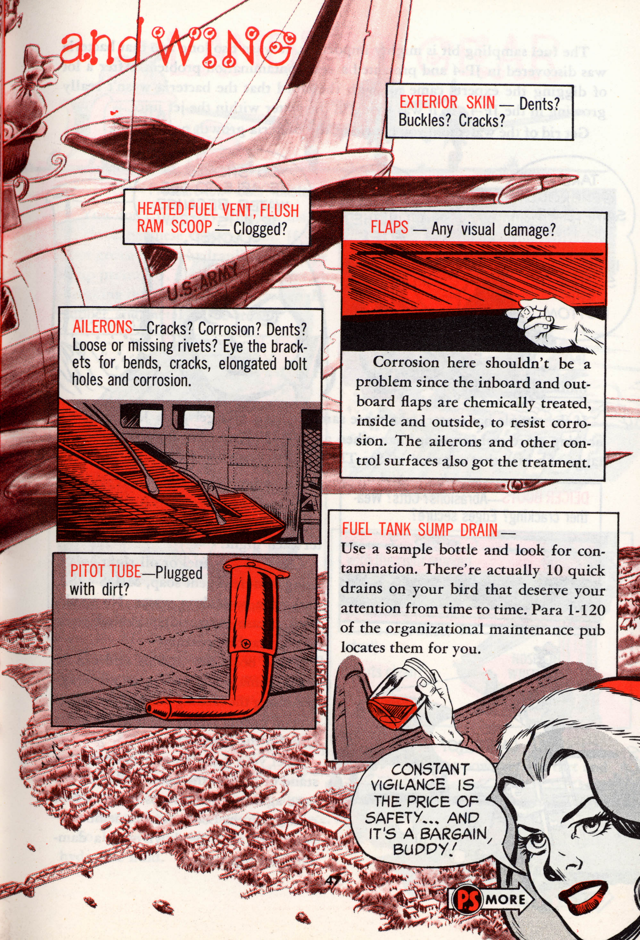
AILERONS—Cracks? Corrosion? Dents? Loose or missing rivets? Eye the brackets for bends, cracks, elongated bolt holes and corrosion.

PITOT TUBE—Plugged with dirt?

FUEL TANK SUMP DRAIN—Use a sample bottle and look for contamination. There're actually 10 quick drains on your bird that deserve your attention from time to time. Para 1-120 of the organizational maintenance pub locates them for you.

PS MORE

and WING



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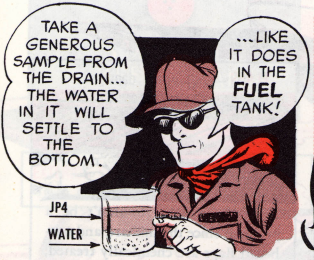
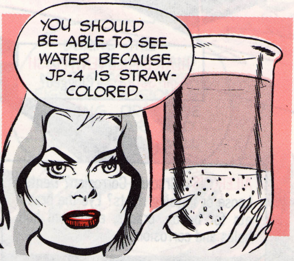
U.S. ARMY
CONSTANT VIGILANCE IS THE PRICE OF SAFETY... AND IT'S A BARGAIN, BUDDY!

PS MORE

The fuel sampling bit is mighty important. It wasn't so long ago that bacteria was discovered in JP-4 and presented a real contamination problem. After a lot of digging the experts came up with the word that the bacteria wasn't really growing in the JP-4 . . . it was living in the water within the jet juice.

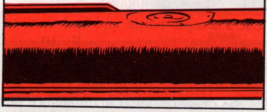
Get rid of the water and you get rid of the bacteria growth possibilities.

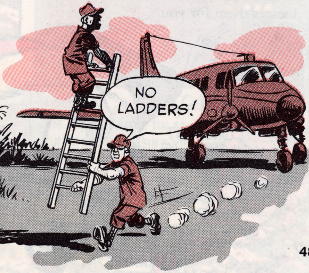

TAKE A GENEROUS SAMPLE FROM THE DRAIN... THE WATER IN IT WILL SETTLE TO THE BOTTOM.
...LIKE IT DOES IN THE FUEL TANK!
JP4
WATER


YOU SHOULD BE ABLE TO SEE WATER BECAUSE JP-4 IS STRAW-COLORED.

If the sample has water, take more samples until you get pure JP-4. There's nothing more embarrassing than when a fact-finding team discovers water in the tanks of a bird that augured in. See TM 10-1101, chap 14, for details.

DEICER BOOTS—Abrasions? Cuts? Weather cracking? Edges secure?





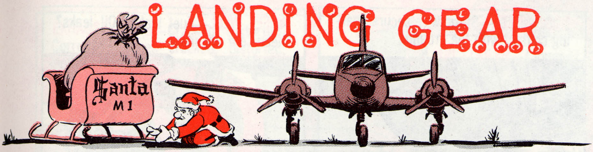
Keep close tabs on the boots. Eye the wing and stabilizer boots for engine oil or spilled fuel during servicing and after each flight.

Clean up any fuel or oil right away, using non-detergent soap, MIL-S-4282, and rinse with clean water. No scrubbing, please—you might rub off some of the graphite coating!

These boots are flexible and can be easily damaged if fuel hoses are dragged along the leading edge of the wing. Nix on resting ladders against the boots also, for the same reason.

Fuel your baby from a maintenance stand or protect the boots by laying the hose against a ladder positioned a foot or so from the boots. And remember—your bird can't be flown with a damaged deicing boot.

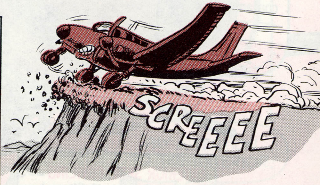
LANDING GEAR

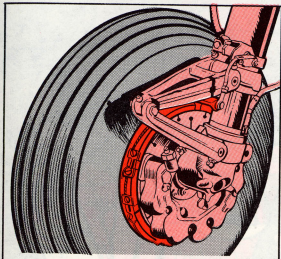


TIRES — Pressure low? Cuts? Blisters?

You don't have any slippage marks to check on these tubeless jobs. If you spot grease, oil or hydraulic fluid, wipe it up pronto . . . plays hob with tires by breaking the adhesive bond between the rubber and metal in the tread.

It's a capital idea not to stand on those king-size brakes unless you're almost out of runway . . . more tires get blown that way! !



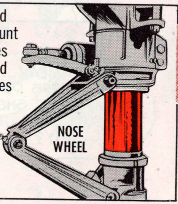


BRAKES — Damaged? Alinement pins cracked? Disks, linings worn

During a tire change be sure the rim is really clean so you get a good seal on your tubeless. Otherwise you'll be running for that air hose rather often! !

STRUTS — Inflated with the right amount of air? Three inches of the piston should be showing (5 inches on the nose wheel strut).

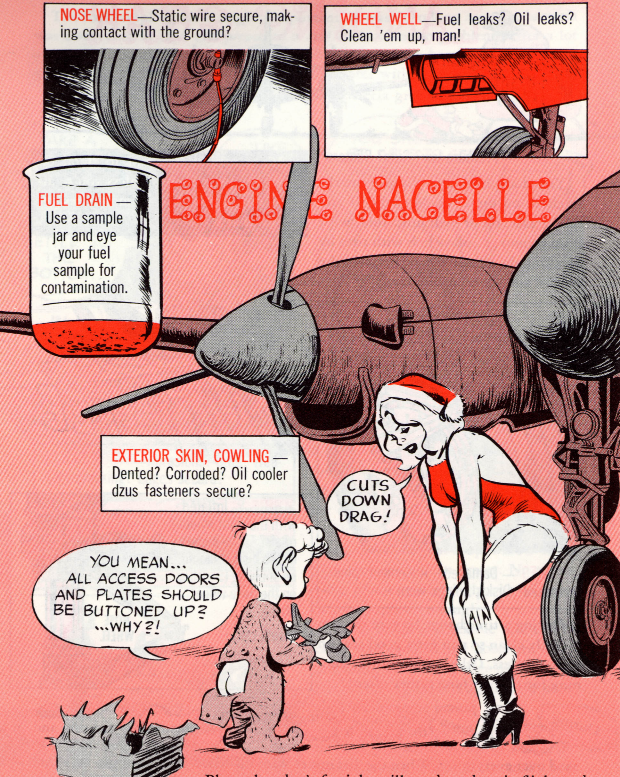
Struts clean?



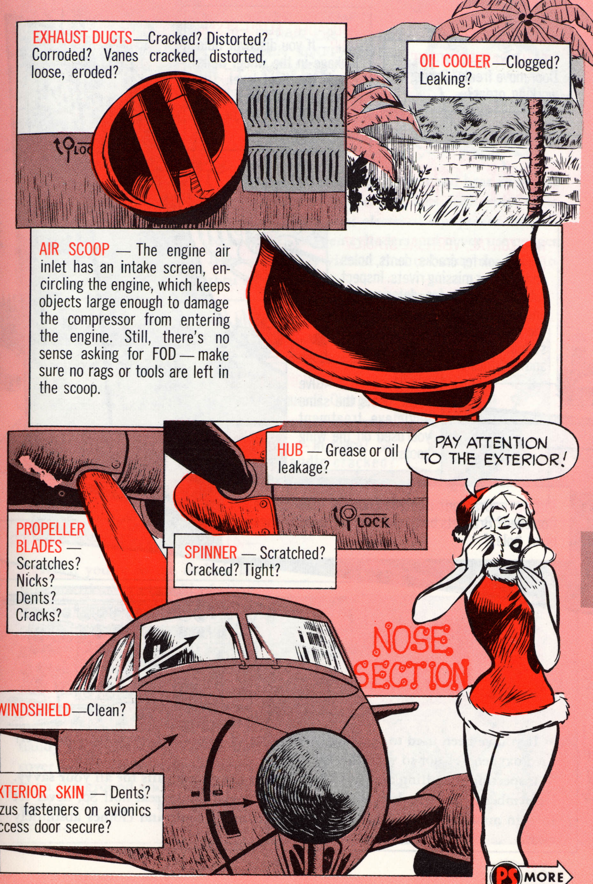
During the dry season the wind is going to spread that powdery red dirt and sand over everything. When the dirt mixes with oil-based fluids you get an abrasive that eats out seals something fierce.

So, be sure you wipe the pistons and shock struts using a rag dampened with hydraulic fluid.

PS MORE


NOSE WHEEL—Static wire secure, making contact with the ground?
WHEEL WELL—Fuel leaks? Oil leaks? Clean 'em up, man!
ENGINE NACELLE
FUEL DRAIN— Use a sample jar and eye your fuel sample for contamination.
EXTERIOR SKIN, COWLING— Dented? Corroded? Oil cooler dzus fasteners secure?
CUTS DOWN DRAG!
YOU MEAN... ALL ACCESS DOORS AND PLATES SHOULD BE BUTTONED UP? ...WHY?!

Plates that don't fit right will produce drag in flight and expose components to wind buffeting . . . 'tain't a healthy situation. So, see that all fasteners are in good shape and secure.



EXHAUST DUCTS—Cracked? Distorted? Corroded? Vanes cracked, distorted, loose, eroded?

OIL COOLER—Clogged? Leaking?

AIR SCOOP — The engine air inlet has an intake screen, encircling the engine, which keeps objects large enough to damage the compressor from entering the engine. Still, there's no sense asking for FOD — make sure no rags or tools are left in the scoop.

HUB — Grease or oil leakage?

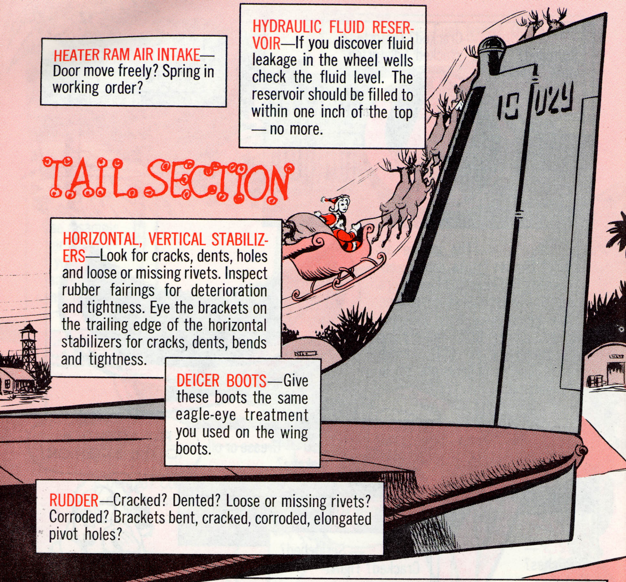
PROPELLER BLADES — Scratches? Nicks? Dents? Cracks?

SPINNER — Scratched? Cracked? Tight?

WINDSHIELD—Clean?

EXTERIOR SKIN — Dents? Dzus fasteners on avionics access door secure?

PS MORE



HEATER RAM AIR INTAKE—Door move freely? Spring in working order?

HYDRAULIC FLUID RESERVOIR—If you discover fluid leakage in the wheel wells check the fluid level. The reservoir should be filled to within one inch of the top—no more.

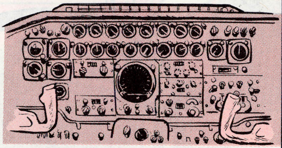
TAIL SECTION

HORIZONTAL, VERTICAL STABILIZERS—Look for cracks, dents, holes and loose or missing rivets. Inspect rubber fairings for deterioration and tightness. Eye the brackets on the trailing edge of the horizontal stabilizers for cracks, dents, bends and tightness.

DEICER BOOTS—Give these boots the same eagle-eye treatment you used on the wing boots.

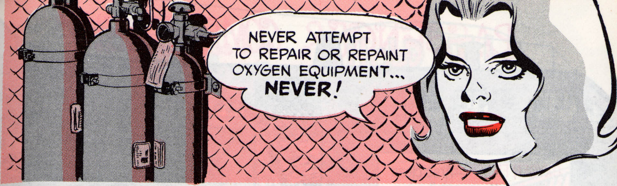
RUDDER—Cracked? Dented? Loose or missing rivets? Corroded? Brackets bent, cracked, corroded, elongated pivot holes?

PILOT COMPARTMENT



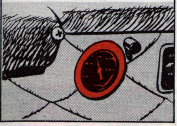
If you've been used to crewing other types of aircraft, chances are you rarely used oxygen . . . not so with this high flier.

Inspecting, handling and servicing the oxygen system calls for all your savvy. Remember—any spark around oxygen can make things real hot! So, never let foreign matter enter the lines and keep your mitts, tools and clothes absolutely clean.


NEVER ATTEMPT TO REPAIR OR REPAINT OXYGEN EQUIPMENT... NEVER!

Keep fire (no smoking, please) and heat away and take care not to generate sparks with your tools. In addition, never let electrical equipment come in contact with oxygen cylinders and never use oxygen from a cylinder without first reducing the pressure thru a regulator.

OXYGEN SYSTEM — Pressure OK?

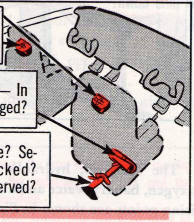


Keep oxygen regulators, cylinders, gages, valves, fittings and masks free of oil, grease, gasoline and any other easily combustible materials.

FIRST AID KITS — In place? Sealed?

FIRE EXTINGUISHER — In place? Secured? Charged?

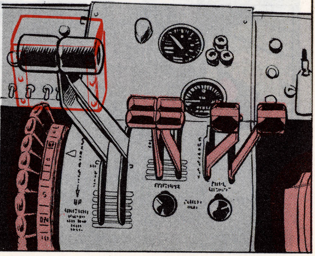
FIRE AXE — In place? Secure? Handle cracked? Head cracked, preserved?



POWER CONTROL LEVERS (THROTTLES)—

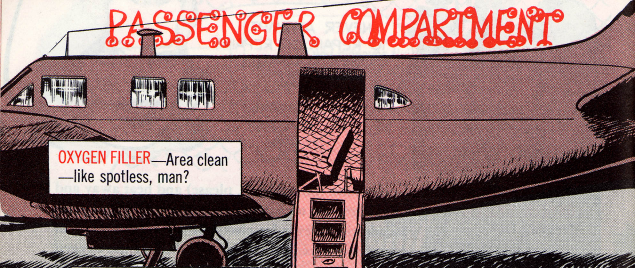
When you're in the cockpit be sure you don't grab hold of these levers, pulling up and aft, into the reverse pitch position when the engines are not running . . . you'll damage the reversing linkage for real!

One way to overcome such a revoltin' development is to make a handy little metal cover. Slip the cover over the levers when the bird is on the ground and nobody will accidentally pull 'em aft, you betcha.

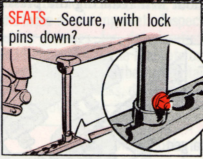


PS MORE

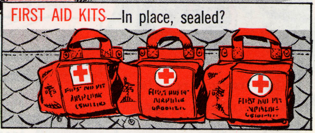
PASSENGER COMPARTMENT



OXYGEN FILLER—Area clean—like spotless, man?



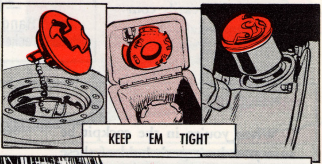
SEATS—Secure, with lock pins down?

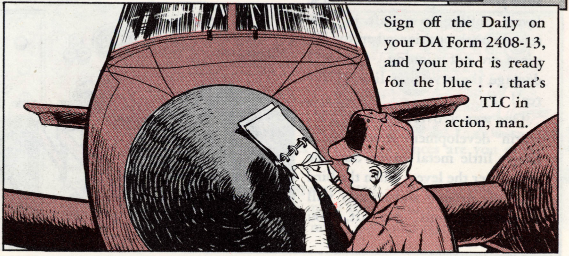


FIRST AID KITS—In place, sealed?

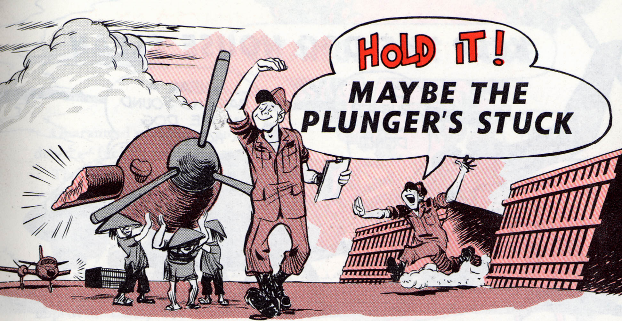
SERVICING

The fuel, oil, hydraulic fluid, oxygen, battery water and air servicing points are shown in Fig 1-14 of TM 55-1510-209-20. Table 1-1 has the correct specs. Following servicing make sure all the filler caps are secured.





Sign off the Daily on your DA Form 2408-13, and your bird is ready for the blue . . . that's TLC in action, man.



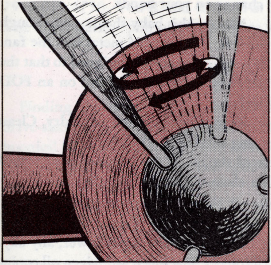
Hold one! Before you call for an engine removal on your Ute because of high torque readings, make sure the torque plunger's not just sticking.

Contaminants in the oil can cause the plunger to stick open, giving you a phony torque reading and a goofed-up automatic feathering system.

What to do? Well, you can't get at the plunger inside the engine so give your baby the shock treatment.

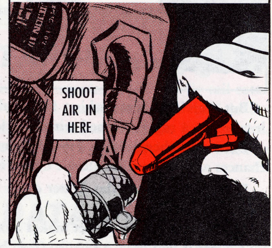
Put your mitts on the prop and rotate it back and forth. Don't spare the muscle power. This rotation of the reduction gears should loosen the torque plunger.

If you still have a sticky wicket on your hands, tho, go one step further.



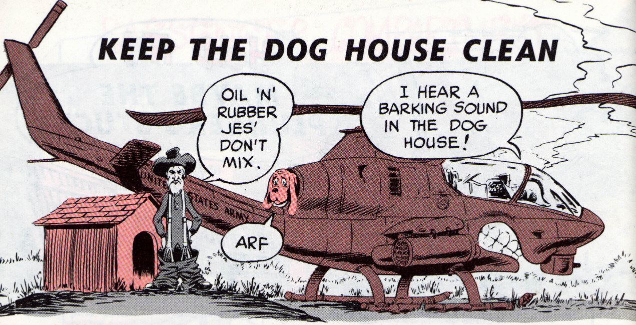
Disconnect the hose (at either end) running between the reduction gear box and the torque manifold.

Have your buddy rock the prop while at the same time you shoot 150-lbs of shop air into the engine.



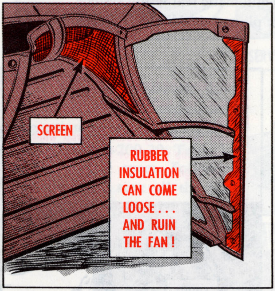
That should do the trick.

KEEP THE DOG HOUSE CLEAN


OIL 'N' RUBBER JES' DON'T MIX.
I HEAR A BARKING SOUND IN THE DOG HOUSE!
ARF
UNITED STATES ARMY

Oil and rubber don't mix, when they come together something has to give.

Take the engine and transmission oil-cooling blower. It's mounted on the number 2 tail rotor driveshaft in the dog house of your HueyCobra (AH-1G).



The blower mountings are made of rubber. When synthetic oil drips from the oil tank or transmission input drive quill, for example, and winds up on the mountings the bond between the mountings and the metal shaft is weakened.

Before long the fan mountings shear, the fan stops, the oil temperature rises . . . you've got a time-consuming blower change on your hands.

'Course this baby shears easy enough as it is, if a hunk of metal hits the fan. The equipment was designed so that the less expensive fan will fail on an FOD strike.

But there's no sense asking for trouble. Keep the drive shaft bone dry. Clean it by using a rag moistened with dry-cleaning solvent, P-D-680.

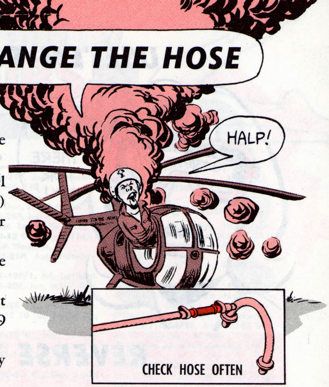
Don't stop there, either. Find the source of the oil. If it's just a seep or a spill chances are you can handle the drip with a clean-up job.

If you have a leak, tho, better check the oil lines and accessories for damage and tightness.

Changing a line or gasket makes more sense than changing a blower, any day.

'Course if you have a factory-fresh bird it has a new bleed air driven oil cooler blower . . . no problem. MWO 55-1520-221-30/11 updates the original blower.

CHANGE THE HOSE



Guaranteed to shake up any airplane driver—fuel fumes in the cockpit!!

That's what you get from the fuel vent system on your Cayuse (OH-6A) if rubber hose, P/N 369A8131-13 or -5, is shot.

To play it safe better change the hose every periodic.

While you're at it, tip off supply that improved hoses, P/N 369A8131-19 and -21 are in the mill.

Eye the new hose for defects every third PMP.

ABRASION STOPPER

When abrasion begins to make an impression on the leading edge of your Cayuse (OH-6A) main rotor blades, reach for vinyl pressure-sensitive tape, FSN 7510-019-4750. You'll find it listed in TM 55-1520-214-20P w/Ch 1 (3 Jul 68). The organization pub tells you where and how to apply the tape.

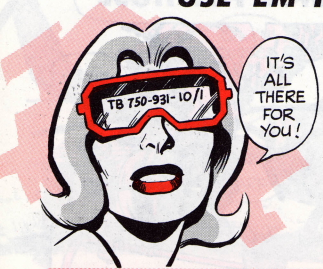
TARHE TANGLE

Finding the stock number of the fluid that services the CH-54's tail-rotor drive-shaft support bearing is about as hard as locating a bashed bird in the boonies! But this Damping Fluid silicone, 100 centistokes comes in 1-lb cans, FSN 9150-269-8246. Meets Fed Spec VV-D-001078 (GSA SS) and it's listed in FSC C9100-IL-CB4 (Sep 68).

NEW BIRD DATA PUB

Don't reach for TB AVN 23-65 to see what TAERS forms are needed for components requiring historical data. You want TB 55-1500-307-25 (8 July 68).

USE 'EM TOGETHER

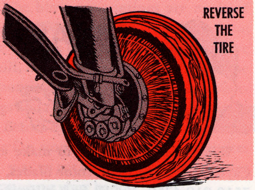

TB 750-931-10/1
IT'S ALL THERE FOR YOU!

When you calibration-types look over TB 55-6635-334-20 (23 Aug 68) on cable tensiometers don't strain your eyeballs looking for the test frequency.

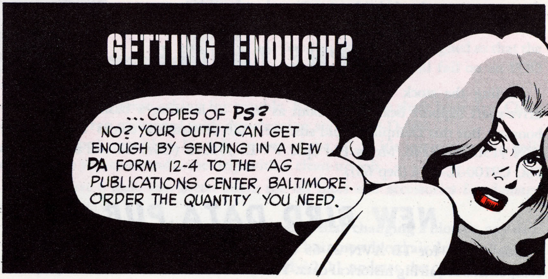
Calibration intervals for all aircraft measuring tools are spelled out in one pub—TB 750-931-10/1 (5 Jan 68) on calibration of aviation test and measuring equipment.

REVERSE THE TIRE

Anytime a tire on your bird shows uneven wear, never increase the tire pressure above the limits given in the organizational maintenance pub. To equalize wear just reverse the tire on the same wheel . . . that's the poop in para 97 of TM 55-405-3 (12 Jul 66).


REVERSE THE TIRE

GETTING ENOUGH?


...COPIES OF PS? NO? YOUR OUTFIT CAN GET ENOUGH BY SENDING IN A NEW DA FORM 12-4 TO THE AG PUBLICATIONS CENTER, BALTIMORE. ORDER THE QUANTITY YOU NEED.

This is a selected list of recent pubs of interest to organizational maintenance personnel. The list is compiled from recent AG Distribution Centers Bulletins. For complete details see DA Pam 310-4, Ch 5 (Feb 68), TM's, TB's, etc.; DA Pam 310-6 (Jul 68), SC's and SM's; DA Pam 310-7 (Apr 68), MWO's.

TECHNICAL MANUALS

TM 1-AH1-S C1, Aug, AH-1G.
TM 1-250, May, Fixed Wing.
TM 3-1040-204-14 C3, Aug, M2A1-7 Port Flame Thrower.
TM 3-1040-209-12 C1, Aug, M10-8 Mech Flame Thrower.
TM 3-1365-200-10, Aug, M72 Chem Agent Identifcation Tng Set.
TM 3-6665-259-10, Aug, Radioactive Test Sample Cesium 137 Gamma M9.
TM 5-2410-231-10, Aug, Full Tracked Tractor Low Speed DED 16,000-24,000 Lb Drawbar Pull 60-In Min Gage Sectionalized Air Trans.
TM 5-3810-225-15 C2, Aug, 20 Ton Trk Mtd Crane-Shovel.
TM 5-3810-233-12, Jul, 5 Ton Cap Wheel Mtd Crane.
TM 5-3895-271-15, Jul, Motorized Roller GED Tandem 13-18 Ton Buffalo-Springfield Mdl KX-25E(A66).
TM 5-3895-283-15, Jul, Drier-Mixer Bitum-Concrete GED 3-10 Ton/Hr McConnaughay Mdl HTD-A-67.
TM 5-3895-326-15, Jun, Bitum Matl Distributor GED 600 Gal.
TM 5-4110-208-10 C2, Aug, 10,000 BTU Refrig Unit.
TM 5-4120-227-15 C1, Aug, 24,500 BTU Air Conditioners.
TM 5-4120-295-25P, Jun, 60,000 BTU/Hr Air Conditioner Carrier Air Conditioning Co. Mdl 76E34-104.
TM 5-4310-219-10 C4, Aug, 600 CFM Air Compressors.
TM 5-4310-246-15 C1, Aug, 15 CFM Air Compressors.
TM 5-4320-242-20P, Jun, Pump Assy GED Gorman-Rupp Mdl 84C15-4A084.
TM 5-4440-209-13, Jul, Elec Dessicant Dehumidifier Eastern Ind Mdl ADS 100 Types 208 and 209.
TM 5-4610-205-20 C1, Aug, Water Purification Equip.
TM 5-4940-220-12, Jul, Shop Equip Contact Maint Trk Mtd.
TM 5-5274 C5, Jun, 150 KW and Up Eng Driven Gen Sets.
TM 5-6115-223-10 C3, Aug, 150 KW and Up Eng Driven Gen Sets.
TM 5-6115-340-15 C1, Aug, 5 KW 400 Cyc Gen Sets.
TM 5-6115-345-20P, Jul, 15 KW Gen Set 60 Hertz AC.
TM 5-6115-357-15 C1, Aug, 15 KW 60 Cyc Gen Set.
TM 5-6115-450-25P, Jul, Gen Set 10 KW AC 400 Hertz MDL HF 10.0-MD.
TM 5-6125-202-25P C1, Aug, 45-60 KW Motor Generators.
TM 5-7430-213-23P, Jun, Composing Mach Varityper Mdl 840.
TM 9-1005-224-10 C1, Jul, M60 7.62-MM Mach Gun, M122 Mount.
TM 9-1015-203-20P, Jul, M101/M101A1 105MM Towed Howitzer.
TM 9-1025-200-12 C3, Aug, M114A1 M123A1 155MM Howitzer.
TM 9-1190-222-25P, Aug, Honest John.
TM 9-1440-301-12P/1, Jul, Sergeant.
TM 9-2300-216-20P, Jun, M107 Gun, M110 Howitzer.
TM 9-2320-206-20 C1, Aug, M123, M123C, M123A1C 10 Ton Tractor Trk, M125 Cargo Trk.
TM 9-2320-224-10 C5, Aug, M114/M114A1 Carrier.
TM 9-4940-251-14, Jul, Nike-Herc Nike-Herc Imp.
TM 10-1670-208-23 C2, Sep, Aerial Deliv Equip.
TM 10-1670-215-23 C3, Sep, Aerial Deliv Equip.
TM 10-3930-242-12, Jun, Rough Terrain Forklift.
TM 10-4930-203-13 C5, Aug, Petroleum Distrib.
TM 11-5805-472-15, May, SM-528/FTC-31 (V) Simulator.
TM 11-5815-331-20P, Aug, AN/VSC-2 Radio Teletypewriter Set.
TM 11-5820-287-12 C1, Jul, AN/GRC-75, -76, -77, -78, -79, -80, -81, -82, -83 AN/TRA-25 AN/TRC-24, -35, -36 OA-3668A/TRC-24 Radios.
TM 11-5820-287-20P-15, Aug, AN/TRA-25, -25A, -25B Radios.
TM 11-5820-568-12, Aug, AN/GRC-147 Radio.
TM 11-5821-260-20, Jul, AN/ARC-115 Radio Set.
TM 11-5965-282-15 C1, Aug, AN/VRC-12, -43, -44, -45, -46, -47, -48, -49 AN/PRC-25 Radio Sets.
TM 11-6615-241-20P, Aug, AN/ASW-29 CH-54 Auto Flight Control Set.
TM 55-450-3 C1, Jul, UH-1.
TM 55-1520-201-20PMI, -20PMP, Jul, UH-19.
TM 55-1520-202-ESC, Jul, CH-34.
TM 55-1520-202-20P C5, Aug, CH-34.
TM 55-1520-203-20PMP, Jul, CH-37.
TM 55-1930-205-10 C1, Aug, LARC V.
TM 55-1520-206-20 C12, Sep, OH-23.
TM 55-1520-206-20P, Jul, OH-23.
TM 55-1520-209-20PMP, Jul, CH-47.
TM 55-1520-209-20-1 C1, Aug, CH-47.
TM 55-1520-209-20P-1 C7, Aug, CH-47.
TM 55-1520-209-20P-1 C8, CP, Aug, CH-47.
TM 55-1520-210-20 C9, Aug, UH-1D.
TM 55-1520-210-20PMI, Jun, UH-1D.
TM 55-1520-218-20 C5, Aug, UH-1A-1B.
TM 55-1520-218-20PMD -20PMI, -20PMP, Jul, UH-1A-B.
TM 55-1520-220-20 C5, Jul, UH-1C.

MODIFICATION WORK ORDERS

5-6115-428-20/1, Aug, 100 KW AC DED Gen Set Holt Bros Mdl HB 3333 Serial No. 1-548 Reinforce Generator Cross-Member Support.
9-1240-227-50/1, Aug, M48A2C Tank.
9-2300-216-30/18, Aug, M107 Gun, M110 Howitzer Replace Motor Flange Screws in Elevating and Traversing Differentials to Provide for Lockwiring.
9-2300-216-30/23, Aug, M107 Gun, M110 Howitzer Replace Traversing Final Drive Aluminum Housing w/Steel Housing.
9-2320-211-20/11, Aug, M52A2 5-Ton Tractor Truck Install Tachograph Unit.
9-2320-223-20/3, Aug, M116 Cargo Carrier Install Improved Fuel Pump Float Switches.
9-2320-224-20/8, Aug, M114/M114A1 Carrier Install Axle Shaft Retainer Kit.

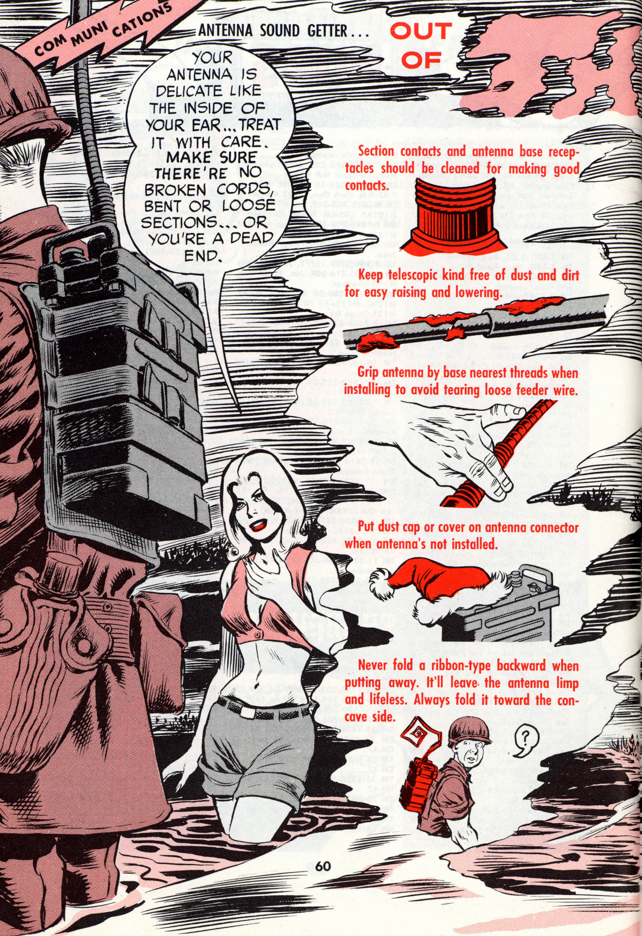
MISCELLANEOUS

AR 700-87, Sep, Supply Discipline.
AR 750-57, Aug, Materiel Readiness ESC.
LO 3-1040-257-20, Aug, M9E1-7 Port Flame Thrower.
LO 5-2420-206-12-1, Jul, Ind Wheeled Tractor DED MED DBP w/Dozer.
LO 5-3895-281-12, Jun, Hot Oil Heater Trailer Mtd Elec Motor Driven 2,100,000 BTU/Hr Output.
LO 5-3895-283-12, Jun, Bitum Drier-Mixer GED 3-10 Ton/Hr w/Eng.
LO 5-3895-321-12-1, Jun, Dust Collecting Mach Paving Matl DED Semi-Trailer Mtd Barber-Greene MDL CA-60.
SC 4920-99-CL-A77, Jul, OH-6 Aircraft Maint Tool Set Airmobile.
TB 9-2320-244-20, Jul, 1¼ Ton M715 Cargo Truck, M725 Ambulance.
TB 55-1510-202-20/9, Aug, O-1.
TB 750-931-10/1 C1, Aug, Fixed, Rotor Wing.
TB 750-991-3, Jun, Fixed Wing EIR Digest.
TB 750-992-3, Aug, Rotor Wing EIR Digest.

TB'S (URGENT)

TB 55-1500-206-20/12, Oct 68, UH-1A-1B, UH-1D/H, UH-1D/M.
TB 55-1500-206-20/13, Oct 68, UH-1A-1B, UH-1D/H.
TB 55-1500-210-20/4, Oct 68, CH-47A, CH-47B.
TB 55-1510-209-20/6, Oct 68, U-21.

ANTENNA SOUND GETTER . . . OUT OF


COM MUNI CATIONS
YOUR ANTENNA IS DELICATE LIKE THE INSIDE OF YOUR EAR... TREAT IT WITH CARE. MAKE SURE THERE'RE NO BROKEN CORDS, BENT OR LOOSE SECTIONS... OR YOU'RE A DEAD END.
?

Section contacts and antenna base receptacles should be cleaned for making good contacts.

Keep telescopic kind free of dust and dirt for easy raising and lowering.

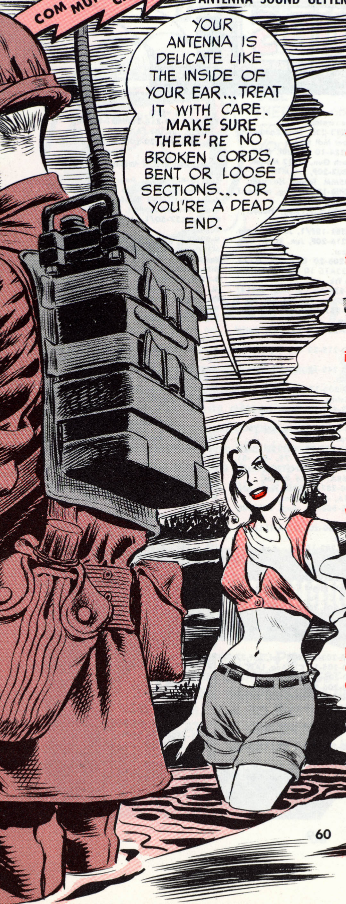
Grip antenna by base nearest threads when installing to avoid tearing loose feeder wire.

Put dust cap or cover on antenna connector when antenna's not installed.

Never fold a ribbon-type backward when putting away. It'll leave the antenna limp and lifeless. Always fold it toward the concave side.

ANTENNA SOUND GETTER . . .

OUT OF THIN AIR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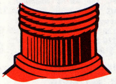

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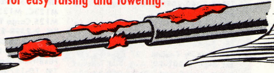

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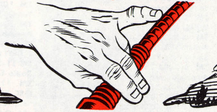

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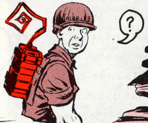
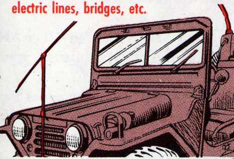
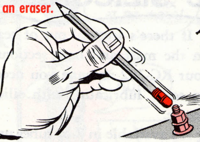


VEHICLE RADIO ANTENNAS

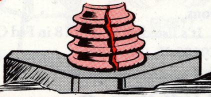
Keep tied down when radio set is not in use, and especially tied down when moving through terrain covered by low-hanging trees, electric lines, bridges, etc.



Never use steel wool. On cleaning protruding contacts, give a couple or three rubs with an eraser.

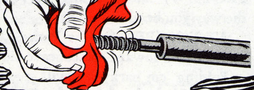


Make sure antennas with ceramic or glass-type bases are not cracked or full of water.



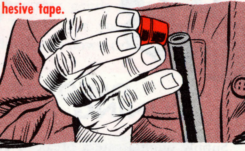
Vehicles should be as level as possible when stopped to keep weighty antennas as vertical as possible.

Clean fittings of antenna sections to make sure they have good contact as well as keeping them from freezing together. Use a dry or damp cloth for cleaning . . . and where corrosion is caked clean with a nylon or wire brush.

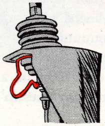


Never — BUT NEVER — operate a radio set without first installing the antenna, or the radio set will be damaged.

Keep water, dirt and mud out of lower antenna base section with rubber caps or adhesive tape.



Antennas requiring ground straps, clamps, etc., should have them secure and in place.



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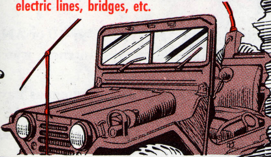

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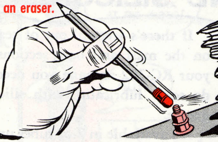

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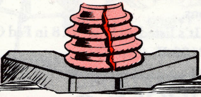

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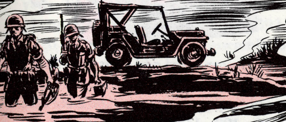

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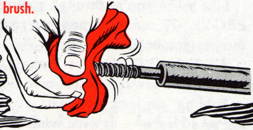

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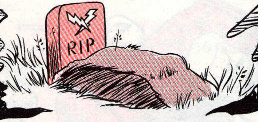

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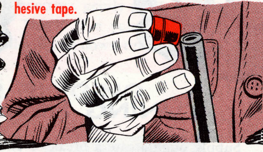

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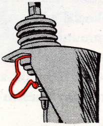
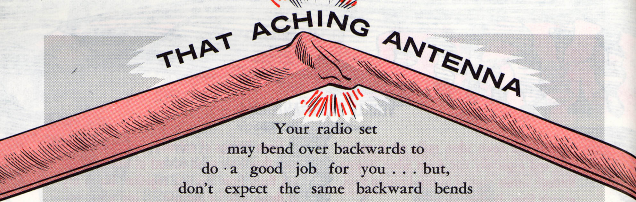


THAT ACHING ANTENNA



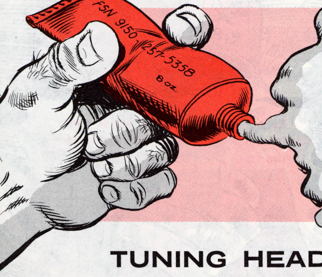
Your radio set
may bend over backwards to
do a good job for you . . . but,
don't expect the same backward bends
out of its antenna.

Like when you're through communicatin' on that AN/PRC-8, -9, -10 or AN/PRC-25, -77 radio set, and you're puttin' away the ribbon-type antenna, watch the way you bend or fold it.

AT-272()/PRC for the Perk-8, -9, -10 and AT-892/PRC-25 antennas have to be folded toward the concave side before pushing 'em in a carrying bag.

Folding 'em backward will sprain the life out of 'em and keep 'em from standing up straight — or even wind up poppin' 'em in two.

SECTIONS AND SILICONE

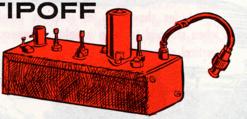


If there's freezin' out of season on the mast and base sections of your RC-292 antenna you need to do some lubricatin' with silicone grease.

It's available in 8-oz tubes under FSN 9150-257-5358, and you use it on both the base and mast sections.

It's listed on Page 4.18 in Fed Cat C9100-IL (Sep 67).

TUNING HEAD TIPOFF



Supply oughta rate a break or two, right?

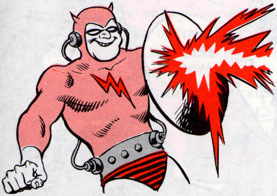
So why not mention what tuning heads you'll need when you order Army Area Communications (AACOMS) radio-set assemblies such as the AN/MRC-54, -69, -73, -102 and the -103?

This'll stop any guessin', and it'll pay off in time saved and costs cut.

This goes for the new AACOMS assemblies, too . . . such as the AN/TRC-108, -109, -110, -117 and the -143.

BLOCK THE SHOCK

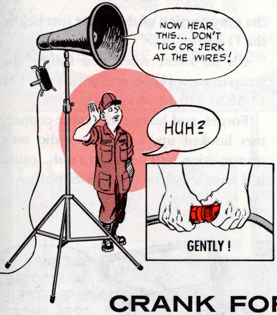
Beat your AN/MPQ-4A radar set to the punch by blocking chances of electrical shock.



Knock it by replacing the J1003 accessory outlet (FSN 5935-202-0940) in the OA-1526 control-indicator group or J1403 outlet (FSN 5935-201-9396) in the OA-1257 receiver-transmitter group with a 3-contact receptacle (FSN 5935-615-3911). The receptacle's listed on Page 422, Vol 2, of Fed Cat C5935-IL-A (Mar 68).

Be sure to ground the round contact.

HOLD CONNECTORS NOT CORDS


NOW HEAR THIS... DON'T TUG OR JERK AT THE WIRES!
HUH?
GENTLY!

A tug and a jerk can put the quietus on your AN/TIQ-2() public address set.

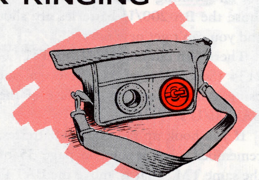
Especially, when it comes to disconnecting the CX-50 or CX-56 microphone cords.

Instead of givin' the cords the muscle treatment to get 'em apart, grab the connector in your hands and unscrew the locking nut. Then, still holding the connectors, gently pull out.

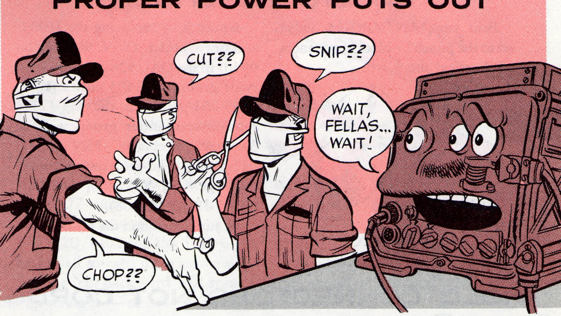
This'll save your set from a lotta silence and down-time.

CRANK FOR RINGING

Are you trying to get your hands on a handle for that G-42 generator on your TA-43/PT or TA-312/PT telephone set? No sweat . . . FSN 5805-392-7726 for the hand crank assembly is being added to the repair parts and special tools list in TM 11-5805-201-12, and it's listed in Army Supply Catalog SC 5805-IL(Jul 67) on Page 97.



PROPER POWER PUTS OUT


CUT??
SNIP??
WAIT, FELLAS... WAIT!
CHOP??

Before you threaten your AN/GRC-106 radio set with maintenance shop surgery due to low power output, make a double-take on the AM-3349's driver amplifier tube plate current adjustment.

Make sure the RF DRIVE and RCVR ANT cable connectors are disconnected when you set the test meter switch in the POWER OUT position.

This should get a meter reading in the gray portion of the meter just below the O mark.

It's no sweat when you follow the setup in para 41b, c, and para 44 in TM 11-5820-520-12 (Aug 64).

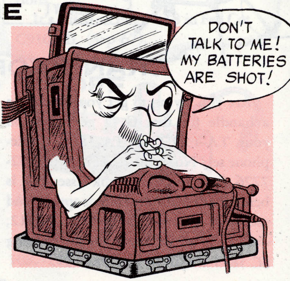
Forget, and leave those cable connectors hooked up, and your radio set's transmission will be cut to a nub, 'cause it'll have a case of low power pulse.

NEVER SAY DIE

You say your SB-86/P switchboard's not on speaking terms with anyone because the BA-200/U batteries are shot and you can't get new ones?

There's an out on page 27 of TM 11-2134 (Sep 55)—where it talks about using storage batteries in place of the BA-200/U's.

If you hook up the storage batteries, remember what it says on page 35 of the same TM. That is, move the BATT. EXT.-INT. switch to EXT.

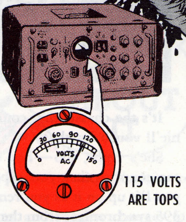

DON'T TALK TO ME! MY BATTERIES ARE SHOT!

PUT OUT OVER OUTPUT

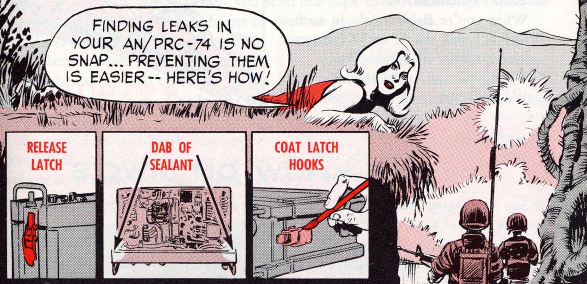
Getting hung up on high voltage can sure cause a freak-out on tubes in a radio set.

Like, f'rinstance, in your AN/GRC-50(V) series radio set's CN-514 voltage regulator, make sure when you're adjusting the output that it goes up to 115 volts on the REGULATED OUTPUT VOLTAGE indicator and no more.

Boost it any higher than what it calls for in Para 3-7b of TM 11-5820-461-12 (Oct 66), Change 1, and a lotta 4037A-type tubes will burn out as well as causin' old age to set in on others.


30 60 90 120 150
VOLTS AC
115 VOLTS ARE TOPS

WATER, WATER... KEEP AWAY


FINDING LEAKS IN YOUR AN/PRC-74 IS NO SNAP... PREVENTING THEM IS EASIER -- HERE'S HOW!
RELEASE LATCH
DAB OF SEALANT
COAT LATCH HOOKS

Release the latches holding the front panel and chassis of the RT-794() receiver-transmitter and remove the O-ring from around the inside of the panel.

Then, put a dab of sealing compound (FSN 8030-242-3193) in the O-ring groove and reseat the O-ring.

Before replacing the chassis and panel in its case, coat the back of the latch hooks and seams of the seam welded cases on the inside with varnish cement (FSN 5970-162-7523).

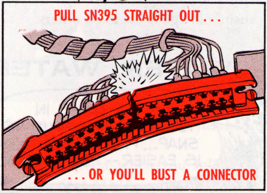
NO BREAKS FOR CONNECTORS

It's the chassis that counts . . . Connie'll vouch for that! . . .

She's right, too — but sometimes it can count against you, especially when you lift up on it as you remove the SN-395 synchronizer from the CY-4918/G equipment case on the SN-394 (V)/G electrical synchronizer.

What you're liable to do in such a lift-up is break the J1 or J2 connector mounted on the equipment case.

To discourage such breakage, just pull the SN-395 straight out, gently.


PULL SN395 STRAIGHT OUT . . .
. . . OR YOU'LL BUST A CONNECTOR

COMSEC EQUIPMENT

IN THE KNOW ON MWO'S

So, the word has trickled down by NSA (National Security Agency) amendment . . . or some such way . . . your communication security equipment is to get a face-lifting . . . or modification.

Well, put those tools away . . . 'cause you have to wait.

You can't modify the equipment until you get the Department of the Army Modification Work Order.

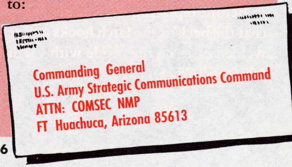
This MWO carries all the info on ordering kits, when to apply the modification, what equipment is to be modified, and all that stuff.

Also, the MWO is your only authority to change COMSEC equipment as per AR 750-5 (Sep 67) and AR 750-18 (Dec 65).

After you get the MWO . . . sic 'em!

And remember to send in the DA Form 2407 reports on the equipment you modify. These equipment histories are given a going over to make it possible for new equipment to be pumped into the system to replace the junkers.

That's so, Joe, so send those 2407's to:



Commanding General
U.S. Army Strategic Communications Command
ATTN: COMSEC NMP
FT Huachuca, Arizona 85613

THERE'S AN ERROR IN THIS MANUAL!
DON'T JUST STAND THERE! TELL 'EM ABOUT IT

A DA Form 2028 is the way you do it. It's called Recommended Changes to DA Publications.

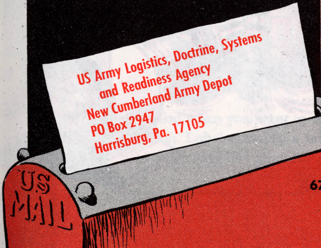
You can also use the Form 2028 to point out errors and suggest changes to your pubs.

Fill 'er out with all the details and send one copy to the outfit responsible for the manual. You'll find the address in the first part of the pub.

A straight line is the shortest distance between two points. You learned that old rule in math class, but it also applies when you're sending in that DA Form 2028.

So how does that math rule apply? You send that form straight to the people who wrote the pub. You'll get results faster, too.

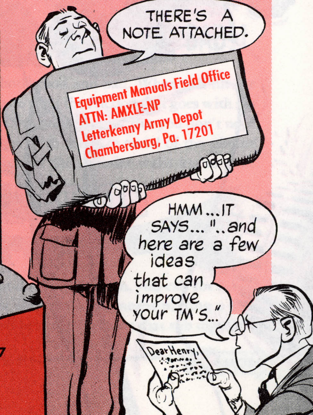
There are a few exceptions to the straight line, of course. They are these publications: TM 38-750, TM 38-750-1, TM 38-750-2, AR 735-35 and AR 711-16. On these, you send the 2028—thru command channels—to—



US Army Logistics, Doctrine, Systems
and Readiness Agency
New Cumberland Army Depot
PO Box 2947
Harrisburg, Pa. 17105

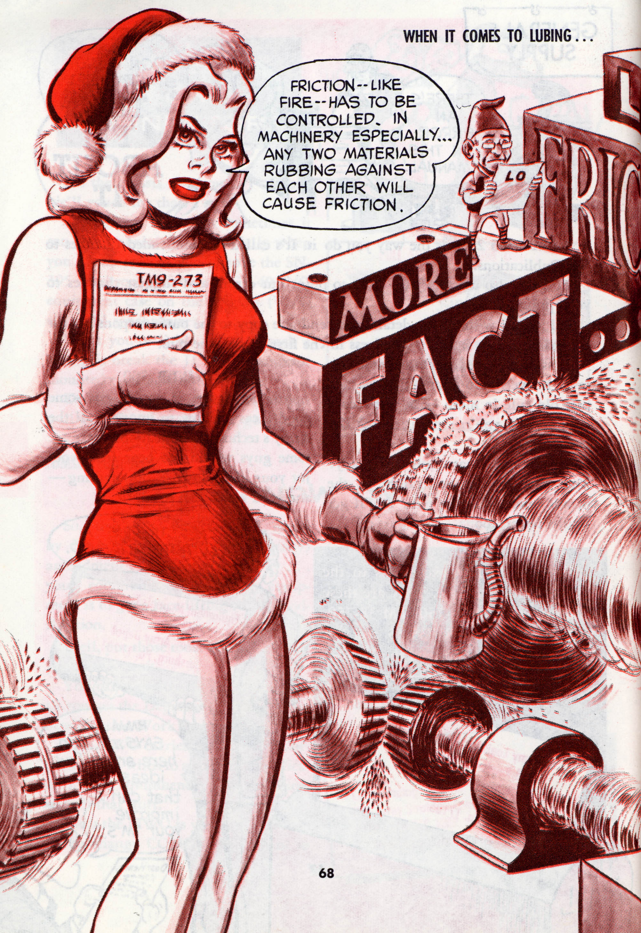
IDEAS WANTED, TOO—

Another thing, if you've got some good ideas on how to improve all the Army's technical publications, there are some guys waiting to hear from you. Jot your ideas down—on anything—and send 'em direct to—


THERE'S A NOTE ATTACHED.
HMM...IT SAYS... "..and here are a few ideas that can improve your TM'S.."
Dear Henry,

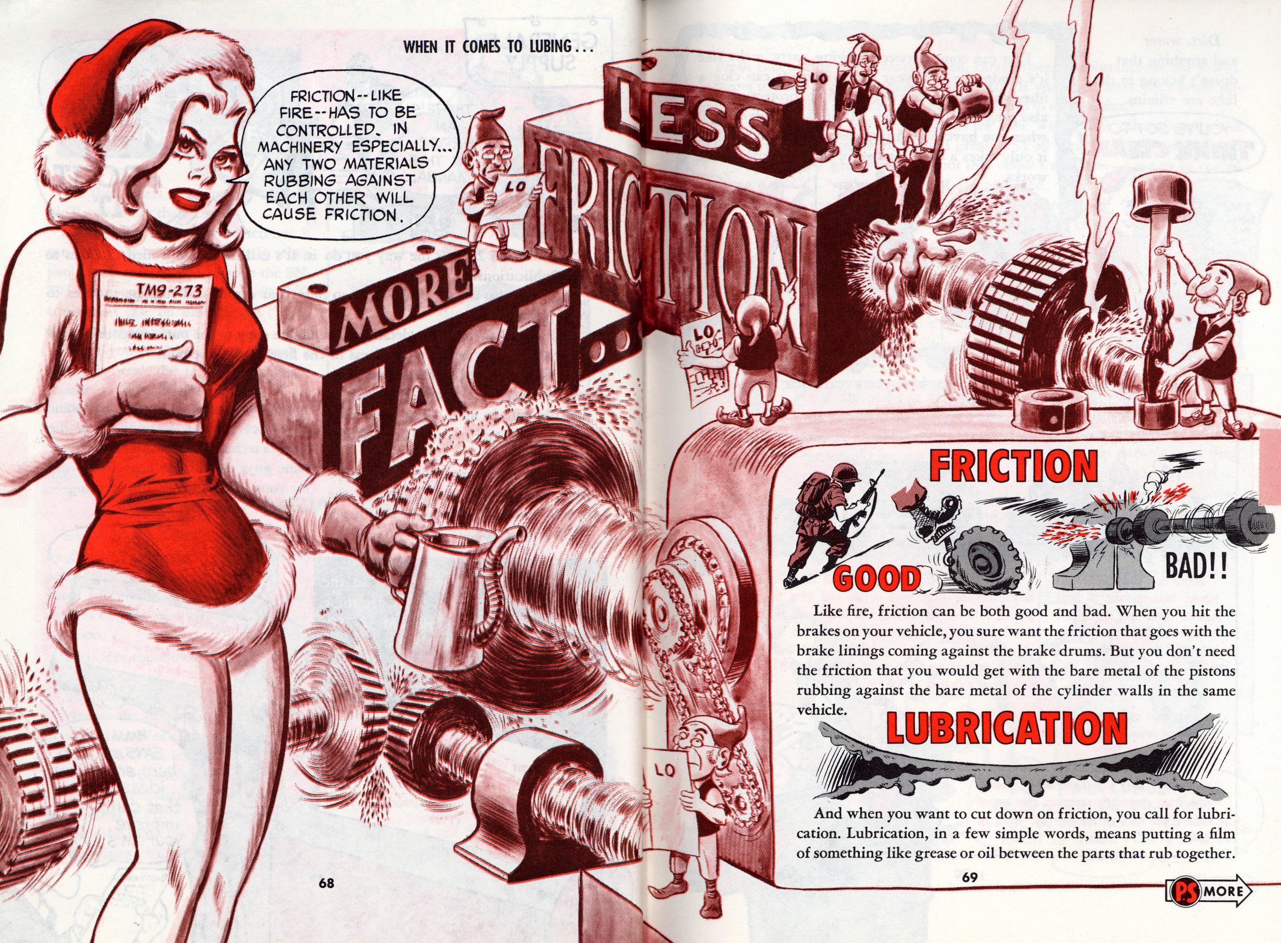
Equipment Manuals Field Office
ATTN: AMXLE-NP
Letterkenny Army Depot
Chambersburg, Pa. 17201

WHEN IT COMES TO LUBING...


FRICTION--LIKE FIRE--HAS TO BE CONTROLLED. IN MACHINERY ESPECIALLY... ANY TWO MATERIALS RUBBING AGAINST EACH OTHER WILL CAUSE FRICTION.
TM9-273
LO
MORE
FACT...
FRIC

WHEN IT COMES TO LUBING . . .

MORE FACT . . . LESS FRICTION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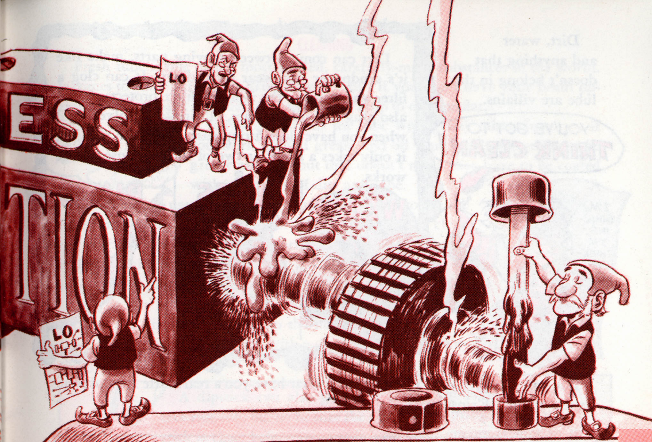
TM9-273
LO
LO
LO
LO
FRICTION
GOOD
BAD!!
LUBRICATION

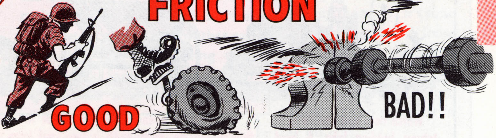
Like fire, friction can be both good and bad. When you hit the brakes on your vehicle, you sure want the friction that goes with the brake linings coming against the brake drums. But you don't need the friction that you would get with the bare metal of the pistons rubbing against the bare metal of the cylinder walls in the same vehicle.

And when you want to cut down on friction, you call for lubrication. Lubrication, in a few simple words, means putting a film of something like grease or oil between the parts that rub together.

PS MORE



FRICTION



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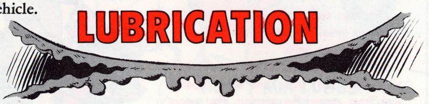

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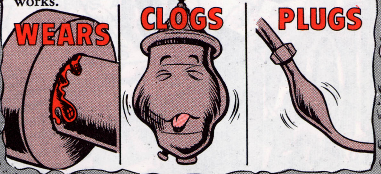
PS MORE

Dirt, water and anything that doesn't belong in the lube are villains.

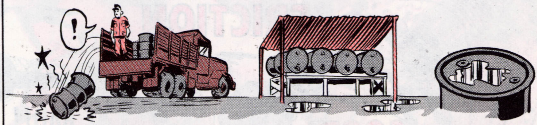
YOU'VE GOT TO THINK CLEAN!
I'M THINKING. I'M THINKING.

Dirt can come between moving parts, make like it's sandpaper and wear them down. It can clog a filter and damage the item the filter protects. It can also plug tiny oil passages, oil lines and valves. And when you have close-fitting parts, like with missiles, it only takes a speck or two of dust to louse up the works.



But you can give dirt, moisture and what-have-you a real battle . . . and come up the winner. F'rinstance . . .

HANDLING

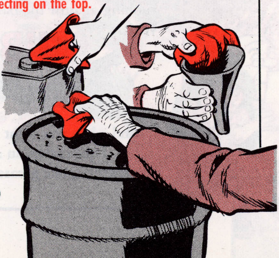


Watch how you handle containers holding lube. A hard bounce could split the seams enough for junk to get inside, but small enough for you to miss.

Try to keep open containers out of the weather. When they're outside, cover with a tarp and keep them off the ground, if there's any chance that they might end up sitting in water — like can happen when rain settles in a low spot. The right way to store a 55-gal drum is on its side with bungs level to prevent breathing moist, outside air. It'll also keep water from collecting on the top.

Lids, caps and plugs belong in one place when you're not using the lube — on the container and shut tight.

Before you pour out or dip into the lube, wipe away dirt, water and other assorted junk from around the opening. That means **before** you take off the lid, cap, vent, or bung.



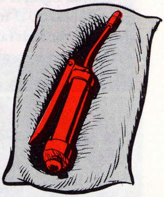
CLEANING

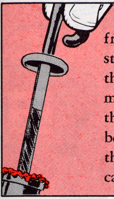
Fresh lube is one of the most refined, carefully-made substances in the world. It comes to you "pure as the driven snow." But if you don't have your brain operating on all eight cylinders you can muck it up in no time flat.

Maybe you touch the lube with grimy mitts. Sure . . . if you work around grease and oil your hands are going to be greasy and oily but that doesn't mean they have to be coated with a mixture of dirt and lube.

Could be you use a dirty grease gun or oil pump to get the lube into the equipment. It doesn't take much time to clean the gear before using it. Also important: watch where you lay it down while you're lubing. And when you're finished, put it in a clean place.

Maybe the lube fittings are dirty. When you have dirty fittings, the dirt gets driven into the fittings along with the lube. It only takes a few twists with a clean rag to wipe away the grime.

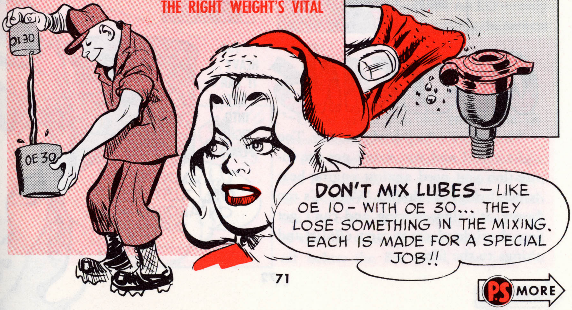




A dipstick can also give dirt a free ride into oil. So be sure the dipstick is clean before you put it into the crankcase for a reading. And make sure there's no junk around the dipstick opening, junk that can be pushed into the opening with the dipstick. Same goes for all filler caps and the areas around them.

On those oil cups with the spring-hinge cap . . . if the spring is shot so that the cap doesn't snap shut and stay that way, it's time for a replacement. A loose cap will let in dirt. And don't forget to wipe away the grime and grit before lifting the cap to squirt in the oil.

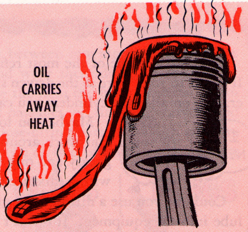
THE RIGHT WEIGHT'S VITAL


OE 30
DON'T MIX LUBES — LIKE OE 10 — WITH OE 30... THEY LOSE SOMETHING IN THE MIXING. EACH IS MADE FOR A SPECIAL JOB!!

PS MORE

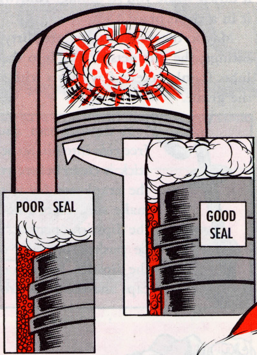
OIL COOLS

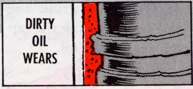
One of oil's biggest jobs is cooling. If it's too light, it can fall down on the job of cooling. If it's too heavy, it can't carry off the heat fast enough. And dirty oil can't move away the heat as quickly as clean oil.


OIL CARRIES AWAY HEAT

OIL SEALS

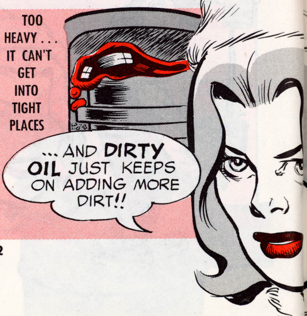
Oil is also a big deal when it comes to sealing an engine. F'rinstance . . . sealing the space between the piston and cylinder wall to keep some of the power from being lost. If the oil is too light, it can't hold the blow-by. If it's too heavy, the seal won't be tight enough. Dirty? The stuff wears away at the metal and makes a bigger space between the piston and wall.


POOR SEAL
GOOD SEAL


DIRTY OIL WEARS

OIL CLEANS

Then there's the job of cleaning. Too light an oil and you won't get the insulation you need against engine heat which brings on sludge. When it's too heavy, it's slow-moving and can't get into the tight places to carry off dirt and things to the filter.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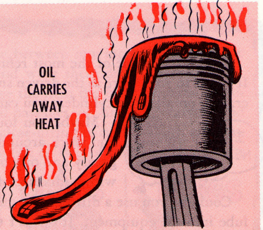
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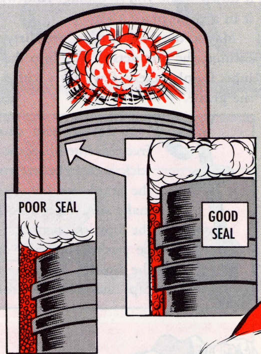
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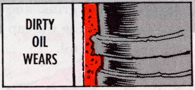
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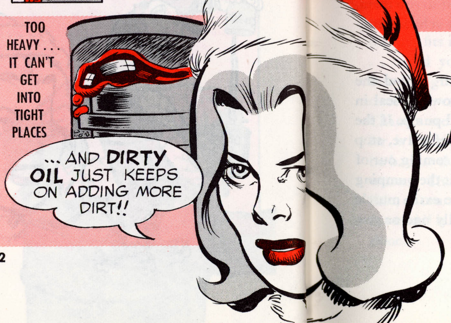
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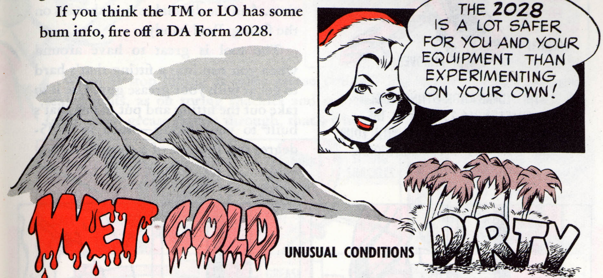
All of which boils down to one thing: you've got to use the right lube and use it right.

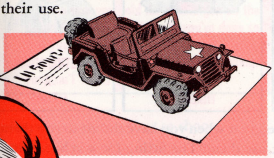
And that's where your TM's and LO's come in. They sure don't leave much to guesswork as far as what, when and where.

If you think the TM or LO has some bum info, fire off a DA Form 2028.


THE 2028 IS A LOT SAFER FOR YOU AND YOUR EQUIPMENT THAN EXPERIMENTING ON YOUR OWN!
WET
COLD
DIRTY

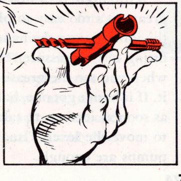
UNUSUAL CONDITIONS

Your TM talks about lubrication of the equipment "under unusual conditions." That scoop's for real. So please to heed, indeed. If you want to find out about the different problems you run into with lubrication in wet, cold, damp and dusty places, spend some time with TM 9-273 (Jan 62)—"Lubrication of Ordnance Material." The TM is also loaded with lots of other dope on lubes and their use.



Your LO is your lubricating bible. It outranks the TM for the equipment—except for special cases. That's when a pub of a later date changes the LO or when the equipment has no LO—only a TM. Then you go with along the newest scoop.

YOU'VE GOT WHAT IT TAKES



Uncle gives you the lubes, the instructions and the tools.

The lube fitting tool you find in tool sets is a jewel. It's a combination tap, die, wrench and remover. The wrench lets you take out a fitting by taking hold of the flat sides. If the fitting is busted off below the flat sides, you put the

PS MORE

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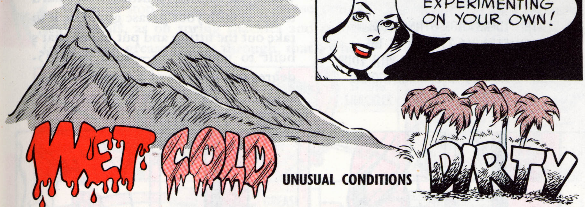

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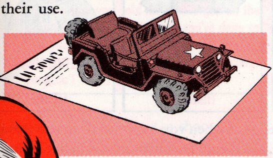

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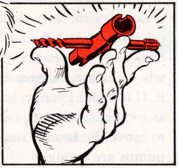

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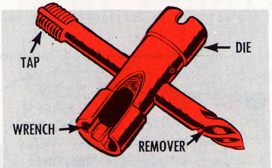
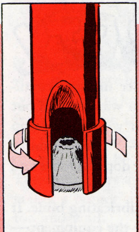
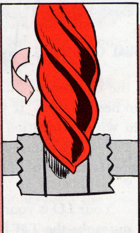


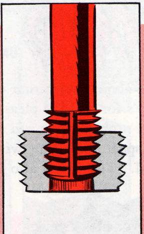
THIS LUBRICATION-FITTING TOOL (FSN 5120-246-2311) IS IN THE LUBRICATION KIT THAT COMES WITH YOUR NO. 1 AND NO. 2 ORGANIZATIONAL COMMON TOOL SET.

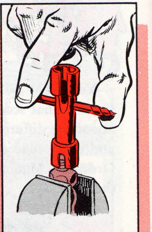
remover into the fitting hole and turn counterclockwise—real easy. You go slow because the remover bites into the plug and begins unscrewing at the same time. And the die makes new threads on the fitting. Real handy.

The tool is great to have around when you run into a fitting that's hard to get at with your grease gun. Use it to take out the fitting and put in one that's built to your liking—such as a 45-degree one in place of a straight fitting.


WRENCHING OUT A FITTING


REMOVING A BROKEN FITTING


TAPPING NEW THREADS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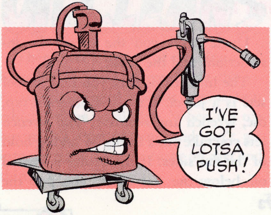
I'VE GOT LOTSA PUSH!

With high pressure air behind the grease, it's too easy to blow the seal in the joint. So use the hand pump. If the fitting has a pressure-relief valve, stop when you see the grease coming out of it. If it hasn't got one, halt the pumping as soon as it starts to take extra muscle to move the lever. Usually one or two pumps are enough.

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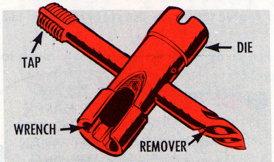
TAP
DIE
WRENCH
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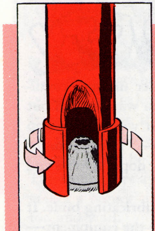

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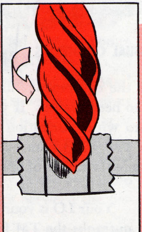

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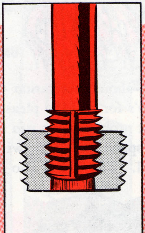

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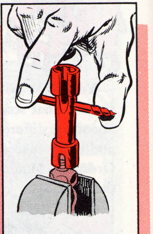

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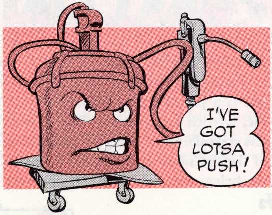
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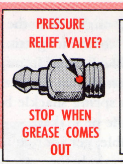
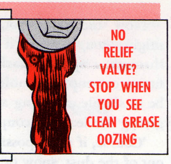

PRESSURE RELIEF VALVE?
STOP WHEN GREASE COMES OUT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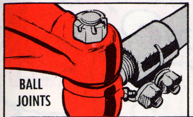
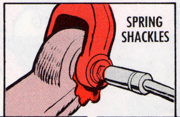
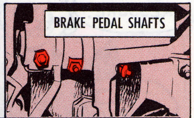
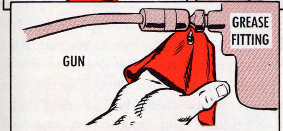

BALL JOINTS


SPRING SHACKLES


BRAKE PEDAL SHAFTS


GUN
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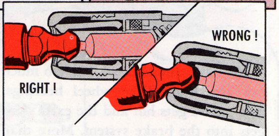
Make sure you hold the grease gun on the fitting tight and straight until you're done so that you don't slop up the place with grease. (Keep a clean rag handy for those drippings you can't help.)


WRONG !
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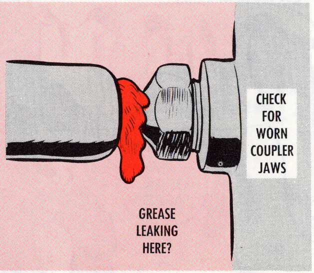
And take the gun off the fitting at an angle—not straight back. That's because of the jaws in the coupler. They take a mean grip on the fitting when the gun is straight on.

Let's say you're going to shoot some lube into a fitting. The coupler fits tight on the fitting . . . and you start to pump. But the grease leaks out between the coupler and fitting. Chances are the fitting or coupler is dirty. The fitting could be bad or the coupler jaws are worn. The jaws are reversible, of course, so turn 'em end-for-end if it hasn't already been done.


CHECK FOR WORN COUPLER JAWS
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PS MORE

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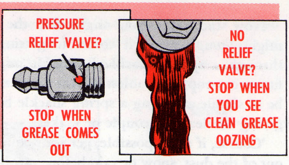
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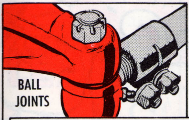
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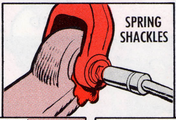
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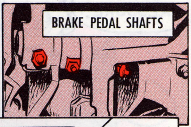
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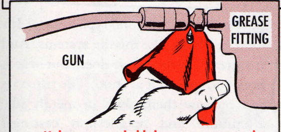
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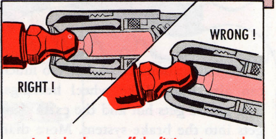
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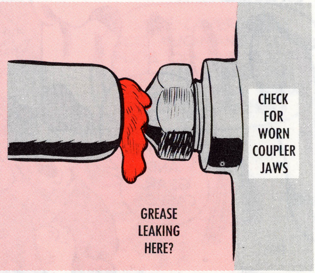
And take the gun off the fitting at an angle—not straight back. That's because of the jaws in the coupler. They take a mean grip on the fitting when the gun is straight on.

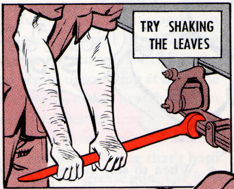
Let's say you're going to shoot some lube into a fitting. The coupler fits tight on the fitting . . . and you start to pump. But the grease leaks out between the coupler and fitting. Chances are the fitting or coupler is dirty. The fitting could be bad or the coupler jaws are worn. The jaws are reversible, of course, so turn 'em end-for-end if it hasn't already been done.


CHECK FOR WORN COUPLER JAWS
GREASE LEAKING HERE?

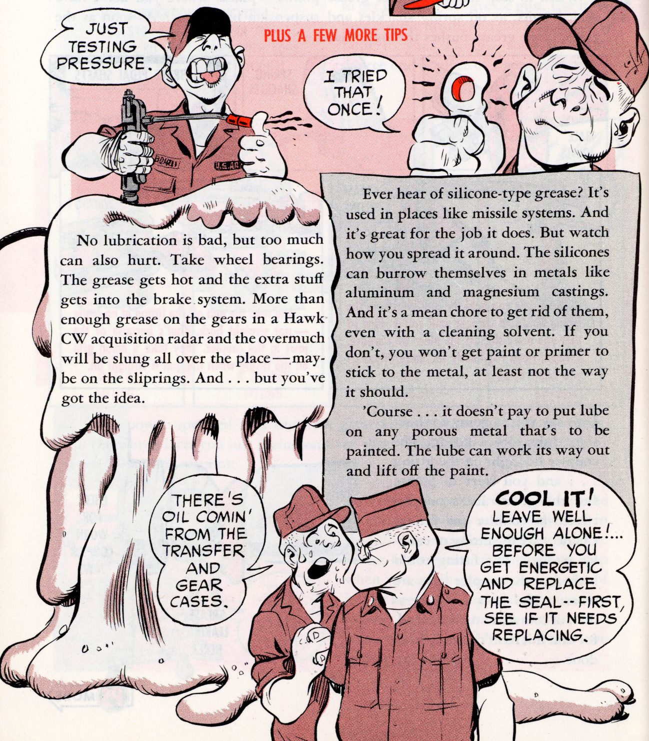
PS MORE

Now and again you might find the going mighty tough when it comes to getting lube through a spring shackle fitting. It might be fitting or coupler troubles. But the answer might be as simple as taking a spring shackle bar and giving the leaves a couple of shakes.

'Course, if at all possible, get your equipment out of the dust, snow or rain before you lube.


TRY SHAKING THE LEAVES

PLUS A FEW MORE TIPS


JUST TESTING PRESSURE.
I TRIED THAT ONCE!
U.S. ARMY
THERE'S OIL COMIN' FROM THE TRANSFER AND GEAR CASES.
COOL IT! LEAVE WELL ENOUGH ALONE!... BEFORE YOU GET ENERGETIC AND REPLACE THE SEAL-- FIRST, SEE IF IT NEEDS REPLACING.

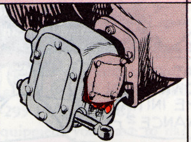
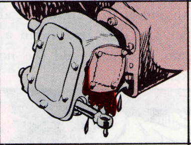
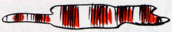
No lubrication is bad, but too much can also hurt. Take wheel bearings. The grease gets hot and the extra stuff gets into the brake system. More than enough grease on the gears in a Hawk CW acquisition radar and the overmuch will be slung all over the place—maybe on the sliprings. And . . . but you've got the idea.

Ever hear of silicone-type grease? It's used in places like missile systems. And it's great for the job it does. But watch how you spread it around. The silicones can burrow themselves in metals like aluminum and magnesium castings. And it's a mean chore to get rid of them, even with a cleaning solvent. If you don't, you won't get paint or primer to stick to the metal, at least not the way it should.

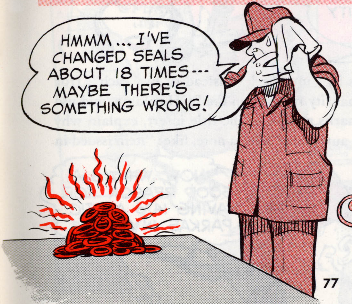
'Course . . . it doesn't pay to put lube on any porous metal that's to be painted. The lube can work its way out and lift off the paint.

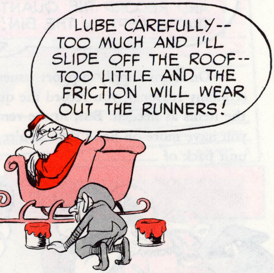
True . . . the seal is given a bath in or coated with the same lube used behind the seal. So it says in different places—such as TB 9-255 (May 60), page 41 of DA pamphlet 750-10 and the pubs that talk about oil seals and the like.

This tells you what to look for and what to do about it.

Amount		You Should
SEEP... Lube is moist to touch, but it doesn't form a drop.		Forget it. It's normal.
LEAK... Lube comes out in little drops.		Change the seal if you're losing 20 percent of the lube between scheduled services.
DRIP... Lube comes out in drops and makes a puddle.		Change the seal.

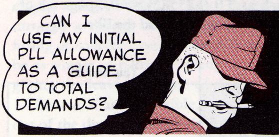
Of course, changing seals because of leaks or drips will get to be a habit if someone doesn't figure out the reason for the lube loss. And it's a wise guy who first figures the leak might be caused by a clogged ventilation valve or line.


HMMM... I'VE CHANGED SEALS ABOUT 18 TIMES--- MAYBE THERE'S SOMETHING WRONG!

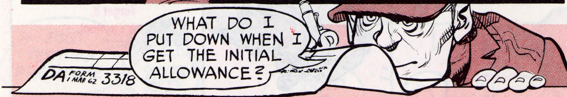

LUBE CAREFULLY-- TOO MUCH AND I'LL SLIDE OFF THE ROOF-- TOO LITTLE AND THE FRICTION WILL WEAR OUT THE RUNNERS!

END

RECORD OF DEMAND TIPS


CAN I USE MY INITIAL PLL ALLOWANCE AS A GUIDE TO TOTAL DEMANDS?

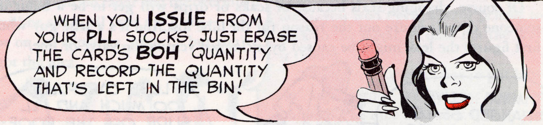
—Your initial PLL allowance is a one-time demand on supply support. It's not a recurring demand, therefore, it's not used in totin' up cumulative demands on an item.


WHAT DO I PUT DOWN WHEN I GET THE INITIAL ALLOWANCE?
DA FORM 1 MAR 62 3318

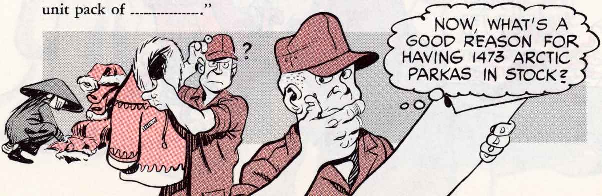
—When you receive your initial PLL allowance all you record on DA Form 3318 is the document number and date in column a, and the quantity of items received in the BOH column. You can add the note "initial issue" across columns b and c, if you like.

SO, WHAT'S THE BIG BIT OF THIS FORM?

—The main job of a DA Form 3318 is to record your unit's demands on supply support. The card doesn't keep track of your issues to the unit's maintenance types or equipment users.


WHEN YOU **ISSUE** FROM YOUR **PLL** STOCKS, JUST ERASE THE CARD'S **BOH** QUANTITY AND RECORD THE QUANTITY THAT'S LEFT IN THE BIN!

—On items supply support issues by "unit pack" instead of by "each", (for economy reasons), you record the quantity received in the BOH column, and use the items as needed. But, in the remarks section of the title insert, explain why you have more on hand than you're authorized with a note, like: "item issued in unit pack of ...."


?
NOW, WHAT'S A GOOD REASON FOR HAVING 1473 ARCTIC PARKAS IN STOCK?

WARRANTY WONDERS

Dear Half-Mast,

When a using unit's required to fill out DA 2408-8, I'm wondering how we're supposed to get the "warranty period" required in block 15. Any suggestions?

SSG J. L. W.

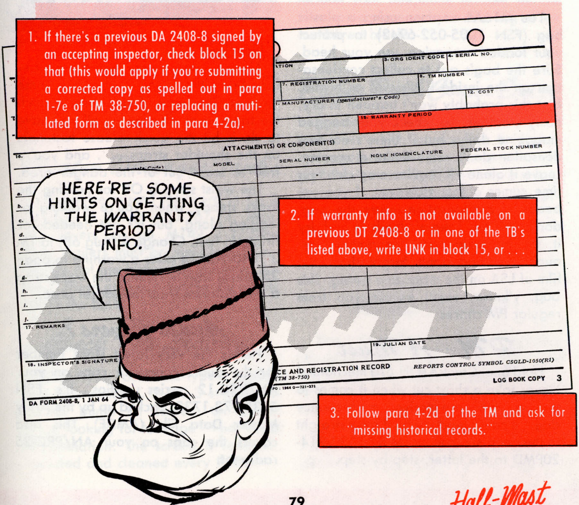
Dear Sergeant J. L. W.,

That's about the size of it, Sarge—suggestions.

O'course, there's some specific warranty info for a few vehicles (3/4-ton and 1-1/4-ton) in TB's, such as TB 9-2300-295-15 (Jun 67), TB 9-2300-295-15/1 (Jun 67) and TB 9-2300-295-15/2 (Jan 68).

But for most other equipment you have to nail down warranty details by checking the fine print in purchase contracts. This info is available to accepting inspectors (who're normally expected to fill in DA 2408-8).

When you, the user, are required to fill in DA 2408-8 (as you are in certain cases) here are a few suggestions:


3. ORG IDENT CODE
4. SERIAL NO.
7. REGISTRATION NUMBER
8. TM NUMBER
MANUFACTURER (Manufacturer's Code)
12. COST
15. WARRANTY PERIOD
ATTACHMENT(S) OR COMPONENT(S)
MODEL
SERIAL NUMBER
NOUN NOMENCLATURE
FEDERAL STOCK NUMBER
17. REMARKS
18. INSPECTOR'S SIGNATURE
19. JULIAN DATE
CE AND REGISTRATION RECORD (TM 38-750)
REPORTS CONTROL SYMBOL CSGLD-1050(R1)
LOG BOOK COPY 3
DA FORM 2408-8, 1 JAN 64
HERE'RE SOME HINTS ON GETTING THE WARRANTY PERIOD INFO.

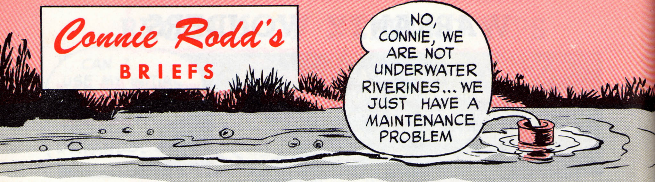
1. If there's a previous DA 2408-8 signed by an accepting inspector, check block 15 on that (this would apply if you're submitting a corrected copy as spelled out in para 1-7e of TM 38-750, or replacing a mutilated form as described in para 4-2a).

2. If warranty info is not available on a previous DT 2408-8 or in one of the TB's listed above, write UNK in block 15, or . . .

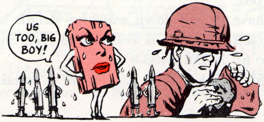
3. Follow para 4-2d of the TM and ask for "missing historical records."

Half-Mast

Connie Rodd's BRIEFS


NO, CONNIE, WE ARE NOT UNDERWATER RIVERINES... WE JUST HAVE A MAINTENANCE PROBLEM

Mag In A Bag?

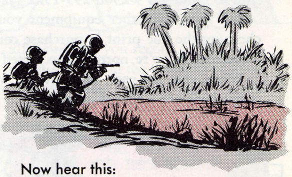

US TOO, BIG BOY!

You M16A1 zapmen using a plastic bag (FSN 1005-052-6942) to protect your loaded magazine, use your head. Sure the bag's apt to collect condensation on the inside if it's wet or humid, **but** this probably won't happen in dry, dusty weather. So, check your bagged magazine daily, but if there's no condensation don't remove the magazine. Leave it alone till regular mag-cleaning time comes along. However, if you see beads of condensation inside the bag, don't let it go. Take off the bag and dry it, the magazine and the ammo thoroughly — and don't forget that little film of LSA on the magazine spring. This bag, y'know, won't excuse you from regular PM chores.

PM--A Must

Hold one, Cayuse (OH-6A) mechanics! Never take a short cut when it comes to pulling the preventive maintenance daily. It could lead the bird crew straight to the deep-six. Follow TM 55-1520-214-20PMD to the letter, step-by-step.

Flame Gunners



Now hear this:

Always release your waist strap before firing the M2A1-7 portable flame thrower. That way, if you have to ditch the tanks in an emergency all you have to do is hit the quick-release fasteners on the shoulder straps . . . and you're free to scoot out of the danger area.

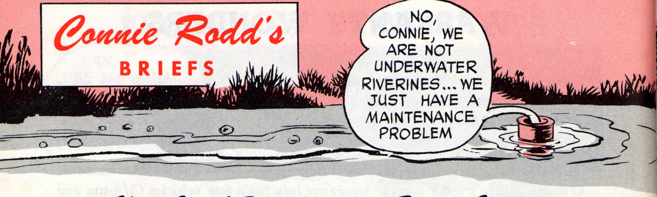
The waist strap is OK for holding the tanks steady when you're walking or jogging along, but it's not needed for firing. In fact, Change 3 (Aug 68) to TM 3-1040-204-14 adds a warning to page 35, which says to release the waist strap a fair distance from the target area.

Audio Covers?

Here's the very latest stock number for the audio connector caps on your AN/VRC-12 series radios. It's FSN 5935-973-1732, backed up by the Army Master Data File (AMDF). This also covers the caps on your AN/PRC-25 radio set.

Would You Stake Your Life right now on

Connie Rodd's BRIEFS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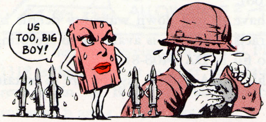
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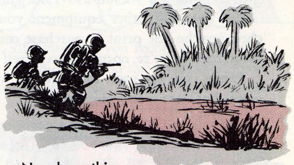

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Armor Kit Ready

When your Cayuse (OH-6A) wades into the fracas make sure she has all the armor protection you can give 'er . . . MWO 55-1520-214-40/1 (18 Jul 68) at least!

Tool Kit--Set A or B?

That's right, you can't have both Tool Kit Set A and Set B for pulling maintenance on your M151's and other G838-series 1/4-ton trucks. TM 9-2320-218-20P (Apr 68), page 10, says which one you get.

Heater Damages Tank

Some guys've missed the word in Ch 2 (Jun 66) to TM 9-2330-267-14. Manhole covers on all M149 1-1/2-ton water trailers must be stenciled: "Caution: Do not use immersion heater in this tank." These guys are ruining the plastic liner in the tank.

Check For Leakage

When you Seminole-types eyeball your luxury model, 0-480-3 engine fuel injector pump oil screen, on a PMI you're looking for leakage — not visual contamination. The screen is removed, inspected and cleaned every PMP.

Give Phone Number

When you write an EIR (Form 2407), it's a good idea to include your unit's telephone number. That way, the commodity command responsible for the equipment can reach you soonest if they need to — and they may need to! Just include your telephone number on the form some place — but not in any of the numbered blocks.

PowerPack Comes Extra

You say you have an AN/PRC-74( ) radio set which is nice but it doesn't operate too well without a power supply? Don't sweat it. The power supply is a part of, but not issued with, the set. Your best bet's to pick the one you need in the BIIL (Basic Issue Items List) in TM 11-5820-590-12 (Mar 66) and -12-1 (Mar 67).

Rusty Decon?

Don't fret when you find rust inside the M11 portable decon. Just wipe out the container as best you can. The DS-2 will dissolve the fuzzy surface rust and the siphon tube strainer will catch any flaky rust particles. You can help keep rust out if you always store the M11 with its head assembly screwed on tight.

Would You Stake Your Life right now on the Condition of Your Equipment?

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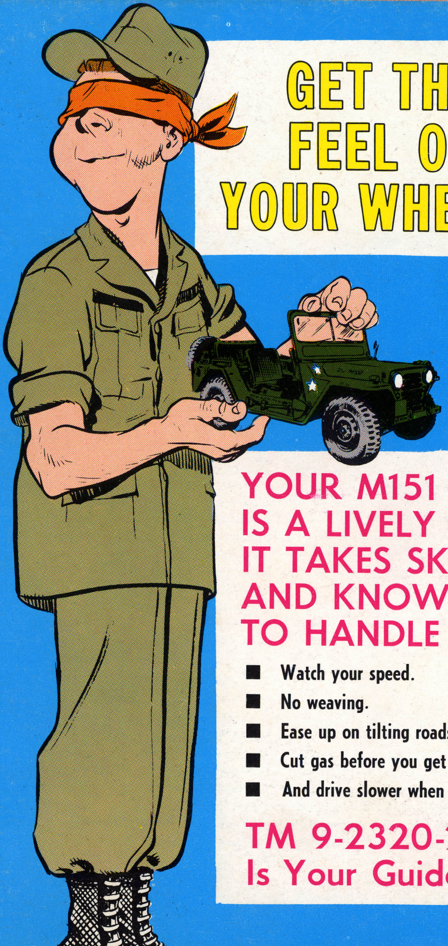
the Condition of Your Equipment?

GET THE FEEL OF YOUR WHEELS



YOUR M151 IS A LIVELY FILLY– IT TAKES SKILL AND KNOW-HOW TO HANDLE 'ER.

- Watch your speed.
- No weaving.
- Ease up on tilting roads.
- Cut gas before you get to curves.
- And drive slower when running empty.

TM 9-2320-218-10
Is Your Guide